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Post-processing: Minimum Match 0%
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Copyright (c) 1993 - 2003 Compugen Ltd.
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Sequence 60, Appl Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 173, App Sequence 172, Appli Sequence 61, Appli Sequence 61, Appl Sequence 59, Appl Sequence 59, Appl Sequence 12653, Appl Sequence 12653, Appl Sequence 125, Appl Sequence 155, Appl Sequence 351, Ap
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			Sequence 320, App		Sequence 3900, Ap	Sequence 73, Appl	Sequence 79, Appl	Sequence 2, Appli	Sequence 8095, Ap	Sequence 3095, Ap	Sequence 2, Appli	Sequence 865, App	Sequence 865, App	Sequence 18, Appl	Sequence 262, App	Sequence 5082, Ap	Sequence 1, Appli	Sequence 107, App	Sequence 105, App	Sequence 30, Appl	Sequence 2, Appli	Sequence 101, App	Sequence 13151, A	Sequence 10111, A	Sequence 9, Appli

ALIGNMENTS

RESULT 1 US-10-044-703-60

Sequence 60, Application US/10044703 Publication No. US20020192233A1

GENERAL INFORMATION:
APPLICANT: DeGroot, Anne S
TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters
FILE REFERENCE: 17999-004 US

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; SEQ ID NO 60
; LENGTH: 20
; TYPE: PRT
; ORCANISM: Mycobacterium tuberculosis
US-10-044-703-60
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GENERAL INFORMATION:
APPLICANT: DeGroot, Anne S
APPLICANT: DeGroot, Anne S
TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters
FILE REFERENCE: 17999-004 US
CURRENT APPLICATION NUMBER: US/09/813,333
CURRENT FILING DATE: 2001-03-20
PRIOR APPLICATION NUMBER: 60/190,834
PRIOR APPLICATION NUMBER: 60/190,834
PRIOR FILING DATE: 2000-03-20
NUMBER OF SEQ ID NOS: 81
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PRIOR FILING DATE: 2000-03-20
NUMBER OF SEQ ID NOS: 81
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CURRENT FILING DATE: 2002-05-20
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US-09-805-427A-4
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US-09-805-427A-1
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Matches 15
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SOFTWARE: Patentin version 3.0
SEQ ID NO 1
LENGTH: 95
TYPE: PRT
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 4
LENGTH: 403
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TITLE OF INVENTION: Hybrids of M. tuberculosis Antigens
FILE REFERENCE: 670001-2002.5
CURRENT APPLICATION NUMBER: US/09/805,427A
CURRENT FILING DATE: 2001-03-13
                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/805,427A CURRENT FILING DATE: 2001-03-13
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TITLE OF INVENTION: Hybrids of M. tuberculosis
FILE REFERENCE: 67001-2002.5
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1.6e-06;
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                                                                    4e-05;
                                                                                 DB 9;
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RESULT 5

RESULT 7

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                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 12
SOFTWARE: PatentIn version 3.0
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                               Sequence 3, Application US/09805427A
Patent NO. US20020176867A1
GENERAL INFORMATION:
APPLICANT: Statens Serum Institut
TITLE OF INVENTION: Hybrids of M. tuberculosis Antigens
FILE REFERENCE: 670001-2002.5
                                                                         Matches
                                                                                         Query Match
Best Local (
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/791,171
CURRENT FILING DATE: 2001-02-20
PRIOR APPLICATION NUMBER: 09/050,739
PRIOR FILING DATE: 1998-03-30
PRIOR APPLICATION NUMBER: 0376/97
PRIOR APPLICATION NUMBER: 0376/97
PRIOR FILING DATE: 1997-04-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/070,488 PRIOR FILING DATE: 1998-01-05
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PRIOR FILING DATE: 1997-11-10
PRIOR APPLICATION NUMBER: 60/044,624
PRIOR FILING DATE: 1997-04-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: FLORIO, Walter TITLE OF INVENTION: NCLEEC ACIDS FRAGMENTS AND POLYPEPTIDE FRAGMENTS TITLE OF INVENTION: DERLYED FROM M. TUBERCULOSIS FILE REFERENCE: 670001-2002.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 173
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                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Artificial Sequence
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TYPE: PRT
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nes 15; Conserv
315 WNFAGIEAAASAIQG
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15; Conserv
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Pred. No.
                                                                       Mismatches
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4e-05;
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US-09-791-171-172

GENERAL INFORMATION:

nce 172, Application US/09791171 t No. US20020094336A1

APPLICANT: ANDERSEN, Peter APPLICANT: NIELSEN, Rikke

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GENERAL INFORMATION:

APPLICANT: DEGTOOT, ANNE S
TITLE OF INVENTION: Human T Cell Respons FILE REFERENCE: 17999-004 US
CURRENT APPLICATION NUMBER: US/10/044;
CURRENT FILING DATE: 2002-05-20
CURRENT FILING DATE: 2002-034
PRIOR PILING DATE: 2000-03-20
NUMBER OF SEO ID NOS: 81
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                                                                                                                                          ; ORGANISM: Mycobacterium tuberculosis US-10-044-703-61
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US-09-791-171-172
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Best Local S
Matches 15
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SEQ ID NO 61
LENGTH: 20
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 172
                                                                      Matches
                                                                                                       Query Match
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PRIOR FILING DATE: 1997-11-10
PRIOR APPLICATION NUMBER: 60/044,624
PRIOR FILING DATE: 1997-04-18
PRIOR APPLICATION NUMBER: 60/070,488
PRIOR FILING DATE: 1998-01-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: FLORIO, Walter
TITLE OF INVENTION: NUCLEIC ACIDS FRAGMENTS AND POLYPEPTIDE FRAGMENTS
TITLE OF INVENTION: DERIVED FROM M. TUBERCULOSIS
FILE REFERENCE: 670001-2002.1
CURRENT APPLICATION NUMBER: US/09/791,171
CURRENT FILING DATE: 2001-02-20
CURRENT FILING DATE: 2001-02-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 09/050,739
PRIOR FILING DATE: 1998-03-30
PRIOR APPLICATION NUMBER: 0376/97
PRIOR FILING DATE: 1997-04-02
PRIOR FILING DATE: 1997-04-02
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                                                                                       Local Similarity
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                                 2 NFAGIEAAASAIQG 15
NFAGIEAAASAIQG 14
                                                                                                                                                                                                                                                                                                                                                                                                            Application US/10044703 No. US20020192233A1
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RASMUSSEN, Peter Birk
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WELDINGH, Karin
                                                                    Conservative
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                                                                                     Score 66;
Pred. No.
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Pred. No.
                                                                    Mismatches
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                                                             DB 9; Lc.
0.00012;
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RESULT 9

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                                                                                                                                                                                                                                                             RESULT 11
US-09-813-333-59
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US-10-044-703-59
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Publication No. US20020192233A1
GENERAL INFORMATION:
APPLICANT: DeGroot, Anne S
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APPLICANT: DeGroot, Anne S
TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters
FILE REFERENCE: 17999-004 US
                                                                                                                                                                                                   Sequence 59, Application US/09813333 Patent No. US20020119160A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 59
LENGTH: 13
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LENGTH: 20
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 59
LENGTH: 13
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                                                                  APPLICANT: DeGroot, Anne S.
TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters
FILE REFERENCE: 17999-004 US
CURRENT APPLICATION NUMBER: US/09/813,333
CURRENT FILING DATE: 2001-03-20
PRIOR APPLICATION NUMBER: 60/190,834
PRIOR APPLICATION NUMBER: 60/190,834
PRIOR FILING DATE: 2000-03-20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/190,834
PRIOR FILING DATE: 2000-03-20
NUMBER OF SEQ ID NOS: 81
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/813,333 CURRENT FILING DATE: 2001-03-20
                                                    NUMBER OF SEQ ID NOS: 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
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Pred. No.
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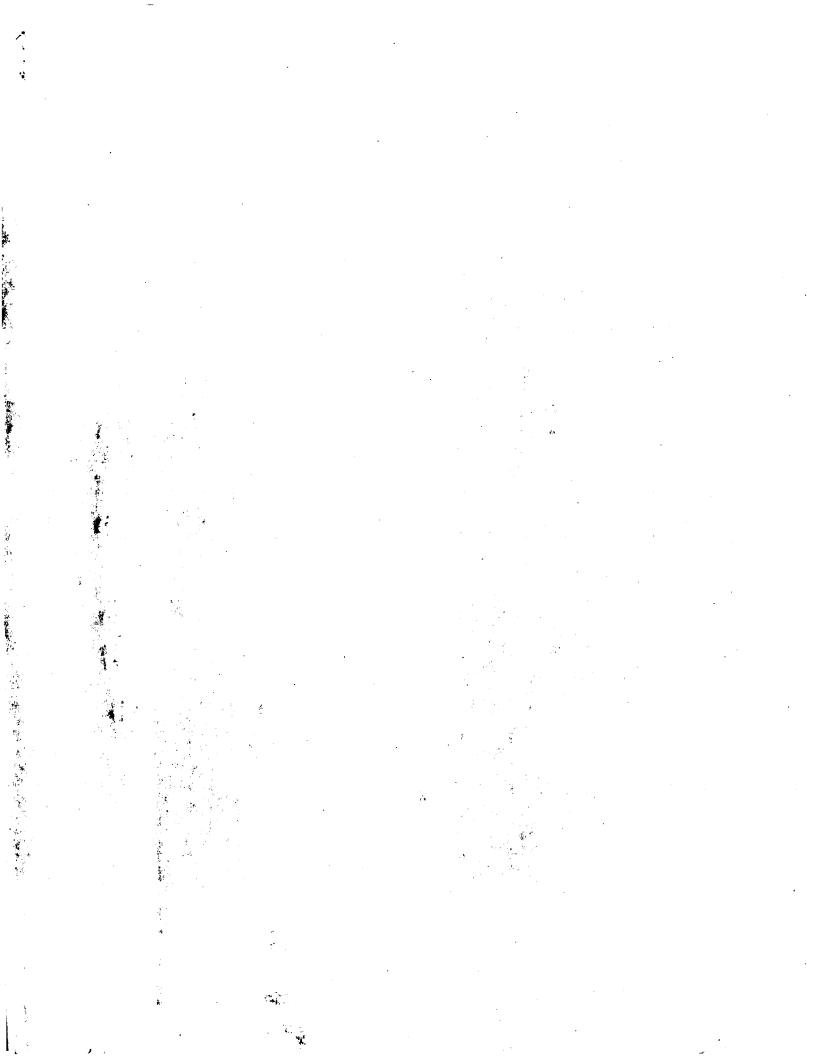
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; ORGANISM: M.tuberculosis
US-09-916-201-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Streptomyces avermitilis
US-10-156-761-12653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: JP 2001-272697
PRIOR FILING DATE: 2001-08-02
NUMBER OF SEQ ID NOS: 15109
SEQ ID NO 12653
LENGTH: 463
                                                               NUMBER OF SEQ ID NOS: 17
SOFTWARE: PatentIn version 3.0
SEQ ID NO 13
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Best Local 9
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Matches 7; Conserv
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                                                                                                                                                                                                                                                                                                sequence 13, Application US/09916201 Patent No. US20020131976A1 GENERAL INFORMATION:
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APPLICANT:
APPLICANT:
                                                                                                            CURRENT APPLICATION NUMBER: US/09/916,201
CURRENT FILING DATE: 2001-07-27
PRIOR APPLICATION NUMBER: US 09/467,893
PRIOR FILING DATE: 1999-12-21
PRIOR APPLICATION NUMBER: US 60/113,783
PRIOR APPLICATION NUMBER: US 60/113,783
PRIOR FILING DATE: 1998-12-23
                                                                                                                                                                                                                  APPLICANT: LALVANI, Ajit
APPLICANT: PATHAN, Ansar A.
APPLICANT: HILL, Adrian V.S.
TITLE OF INVENTION: TUBERCULOSIS VACCINE
FILE REFERENCE: 117-359
                                 LENGTH: 9
TYPE: PRT
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PRIOR FILING DATE: 2001-05-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/10/156,761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: OMURA, SATOSHI
APPLICANT: IKEDA, HARUO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PITLE REPERENCE: 249-262
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HORIKAWA, HIROSHI
SHIBA, TADAYOSHI
SAKAKI, YOSHIYUKI
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Pred. No.
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US-09-739-254-155
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PRIOR FILLING DATE: 2001-07-16
PRIOR PELICATION NUMBER: 09/511,554
PRIOR FILLING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/097,917
PRIOR FILLING DATE: 1998-08-25
PRIOR APPLICATION NUMBER: 60/098,634
PRIOR FILLING DATE: 1998-08-31
                                                                                                                             NUMBER OF SEQ ID NOS: 17
SOFTWARE: PatentIn Ver.
SEQ ID NO 155
LENGTH: 221
Query Match
Best Local Similarity
Matches 8; Conserv
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LENGTH: 221
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 155, Application US/09739254
Patent No. US20010021700A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/739,254
CURRENT FILING DATE: 2000-12-19
EARLIER APPLICATION NUMBER: 09/511,554
EARLIER FILING DATE: 2000-02-23
EARLIER APPLICATION NUMBER: PCT/US99/19330
EARLIER FILING DATE: 1999-08-24
EARLIER APPLICATION NUMBER: 60/097,917
EARLIER APPLICATION NUMBER: 60/097,917
                                                                                                                                                                                                      EARLIER FILING DATE: 1998-08-25
EARLIER APPLICATION NUMBER: 60/098,634
EARLIER FILING DATE: 1998-08-31
                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Rosen et al. TITLE OF INVENTION: 49 FILE REFERENCE: PZ032P1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/054,988 CURRENT FILING DATE: 2002-01-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Rosen et al.
TITLE OF INVENTION: 49 Human Secreted Proteins
FILE REFERENCE: PZ032P1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          132 WNLLGDEAAAELAQ 145
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   Conservative
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Score 39; DB Pred. No. 53; 0; Mismatches
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Search completed: July 3, 2003, 14:08:27
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1: /cgn2_6/ptodata/1,

2: /cgn2_6/ptodata/1,

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Copyright (c) 1993 - 2003 Compugen
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                            US-08-818-112-104
US-08-818-111-99
US-09-056-556-19
US-09-072-596-99
US-09-08-465-640-2
US-09-368-590-9
US-09-368-590-9
US-09-202-893B-4
US-09-368-2-142-74
US-08-482-142-71
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PCT-US-08-461-809-11
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                            Sequence 104, App Sequence 99, Appl Sequence 99, Appl Sequence 2, Appl Sequence 2, Appl Sequence 2, Appl Sequence 11, Appl Sequence 11, Appl Sequence 11, Appl Sequence 74, Appl Sequence 3, Appl Sequence 3, Appl Sequence 11, Appl Sequence 2, Appli Sequence 2, Appli
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      Sequence
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US-08-818-112-104
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Sequence 104, Appr
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                                                           Query Match
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                                  Matches
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CITY: Seattle
STATE: Washington
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sequence 6, Appii		Sequence 6, Appli	•	•	Sequence 10, Appl	`		•	Sequence 2, Appli	•	Sequence 2, Appli	•					

ALIGNMENTS

Minimum DB Maximum DB

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TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 51 amino acids
TYPE: amino acid
STRANDEDNESS: single
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APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Campos-Neto, Antonio
APPLICANT: Campos-Neto, Raymond
APPLICANT: Houghton, Raymond
APPLICANT: Twardzik, Daniel R.
TITLE OF INVENTION: COMPOUNDS AND ME
TITLE OF INVENTION: AND DIAGNOSIS OF
NUMBER OF SEQUENCES: 153
CORRESPONDENCE ADDRESS:
ADDRESSED AND BERRY LLP
                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/818,112
FILING DATE: 13-MAR 1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Reed, Steven
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ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 21
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/08818112
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                   100.0%;
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                 Score 77; L
Pred. No. 7.
  Mismatches
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                   DB 4;
7.6e-07;
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                                  Length 51;
Indels
0,
Gaps
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STATE: Washington

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RESULT 3
US-09-056-556-104
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US-08-818-111-99
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                                                                                                                                        Sequence 104,
Patent No. 63
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Best Local Similarity
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/818,111
FILING DATE: 13-MAR-1997
                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 99:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:

NAME: Maki, David J.

REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 2101
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
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                                                                       APPLICANT: Reed, Steven G.
APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Dillon, Davin C.
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LENGTH: 51 amino acids
TYPE: amino acid
STRANDEDNESS: single
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ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center,
                             NUMBER OF SEQUENCES: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy
                                                             TITLE OF INVENTION:
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 STREET:
                ADDRESSEE:
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98104-7092
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6300 Columbia Center, 701 Fifth Avenue
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Dillon, Davin C.
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                SEED and BERRY LLP
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                                                            COMPOUNDS AND METHODS FOR THE PREVENTION AND
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100.0%; Pred. No.
tive 0; Mismatch
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Best Local Similarity
Matches 15; Conserv
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                                                                                                                      ZIP: 98104-7092
ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tent No.
                           ATTORNEY/AGENT INFORMATION:
NAME: Mak1, David J.
REGISTRATION NUMBER: 31,392
                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
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LENGTH: 51 amino acids
TYPE: amino acid
STRANDEDNESS: single
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1:0,
CURRENT APPLICATION DATA:
TELECOMMUNICATION INFORMATION:
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APPLICANT:
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MEDIUM TYPE: Floppy disk
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                                                                              APPLICATION NUMBER: FILING DATE: 05-MAY CLASSIFICATION:
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REGISTRATION NUMBER: 31,392
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               REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                     USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Houghton, Raymond Vedvick, Thomas S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Skeiky, Yasir A.W. Dillon, Davin C.
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Pred. No.
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INFORMATION FOR SEQ ID NO:

99:

TELEPHONE:

682-6031

SEQUENCE CHARACTERISTICS:

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; MOLECULE TYPE:
US-08-465-640-2
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Best Local Similarity 100.
                                    Matches
                                                             Query Match
                                                                                                                        TELEX: 248633
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENCTH: 95 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/123,182

FILING DATE: 20-SEP-1993

PRIOR APPLICATION DATA:

APPLICATION UMBER: PCT/DK94/00273

FILING DATE: 01-JUL-1994

ATTORNEY/AGENT INFORMATION:
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PELING DATE: 05-71111.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                    Local Similarity hes 15; Conserv
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STRANDEDNESS: single
                                                                                                                                                                                                                             REGISTRATION NUMBER: 28,005
REFERENCE/DOCKET NUMBER: AN
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419 Seventh Street, N.W.,
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VENTION: TUBERCULOSIS VACCINE
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                                      Conservative
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Pred. No. 7
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US-09-202-893B-4
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US-09-368-590-2
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Matches
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SEQ ID NO 2
LENGTH: 2293
                                                                                                 Query Match
                                                                                                                                                                                                   SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
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                                                                  Matches
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CURRENT APPLICATION NUMBER: US/09/368,590
CURRENT FILING DATE: 1999-08-04
EARLIER APPLICATION NUMBER: 60/095,657
EARLIER FILING DATE: 1998-08-07
                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: JP 8/257764 PRIOR FILING DATE: 1996-09-06
                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: JP 8/184266
PRIOR FILING DATE: 1996-06-26
                                                                                                                                                                                                                                                                                                                                     APPLICANT: SONE, Harue
APPLICANT: SAKO, TOMOYUKİ
TITLE OF INVENTION: METHODS FOR TRANSFERRING GENE INTO CHROMOSOME
FILE REFERENCE: 980794/HG
CURRENT APPLICATION NUMBER: US/09/202,893B
CURRENT FILING DATE: 1998-12-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: KADOTA, Mariko
                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: PCT/JP97/02187
PRIOR FILING DATE: 1997-06-25
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                                                                                                                                                  LENGTH: 418
TYPE: PRT
ORGANISM: Lactobacillus casei
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mes 8; Conserv
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                               3 FAGIEAAASAIQG 15
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FARIKAAAKKVQG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      KIWAKI, Mayumi
SAWAKI, Saeko
                                                                                                                                                                                                                                                                                                                                                                                                                                        SHIRASAWA, Yukiko
                                                                  Conservative
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                                                                                  49.4%;
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                                                                                  Score 38;
Pred. No.
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Pred. No.
                                                                  Mismatches
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                                                                Indels
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RESULT 8 US-09-509-902A-9 ; Sequence 9, Application US/09509902A

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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-509-902A-9
                                                          CLASSIFICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US/08/445,307
FILING DATE: 07 June 1995
ATTORNEY/AGENT INFORMATION:
NAME: CRAIG, ANNE I.
REGISTRATION NUMBER: 32,976
REFERENCE/DOCKET NUMBER: 017.6US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 466-6000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1
Patent No.
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Best Local
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SEQ ID NO 9
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                TELEFAX: (617) 466-6040 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/509/902A
CURRENT FILING DATE: 1999-08-03
NUMBER OF SEQ ID NOS: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Marken, John S. TITLE OF INVENTION: Human cDNAs Encoding Polypeptides Having Kinase Functions FILE REFERENCE: 2877-US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                            COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-
SOFTWARE: ASCII TEXT
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Shaked, 26 ev
TITLE OF INVENTION: T CELL EPITOPES OF THE MAJOR ALLERGENS
TITLE OF INVENTION: FROM DERMATOPHAGOIDES (HOUSE DUST MITE)
NUMBER OF SEQUENCES: 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/482,142 FILING DATE: 07-JUN-1995 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
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LENGTH:
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Similarity 50.0%;
6; Conservative
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Bird, Timothy A.
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Franzen, Henry
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Greenstein, Julia
Kuo, Mei-chang
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amino acids
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Pred. No.
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Query Match
Best Local Similarity
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; FRAGMENT TYPE: N-terminal
US-08-482-142-11
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                                                                                        US-08-482-142-74
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/445,307 FILING DATE: 07 June 1995 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS
SOFTWARE: ASCII TEXT
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: IMMULOGIC PHARMACEUTICAL CORPORATION
STREET: 610 LINCOLN STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Evans, Sean
APPLICANT: Shaked, Ze'ev
TITLE OF INVENTION: T CELL EPITOPES OF THE
TITLE OF INVENTION: FROM DERMATOPHAGOIDES
NUMBER OF SEQUENCES: 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                       MOLECULE TYPE: peptide FRAGMENT TYPE: N-terminal
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                                                                                                                                   TOPOLOGY: linear
                                                                                                                                                                                                                                                        NAME: CRAIG, ANNE I.
REGISTRATION NUMBER: 32
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: FILING DATE: 07-JUN CLASSIFICATION: 435
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CITY: WALTHAM
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Local Similarity 50.0%;
es 6; Conservative
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                                                                                                                                                               LENGTH:
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 1 WNFAGIEAAASA 12
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Chen, Xian
                               Conservative
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                                           45.5%;
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                                           Score 35;
Pred. No.
                               Mismatches
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GOIDES (HOUSE DUST MITE)
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9.2;
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                                                        Length 29,
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                               Indels
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15 WAFSGVAATESA 26

APPLICANT:

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RESULT 12
US-08-478-572-74
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; FRAGMENT TYPE:
US-08-478-572-11
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US-08-478-572-11
                                                                                                                    Sequence 74,
Patent No. 5
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                                                                                                                                                                                                                                                                                                     Query Match
                                                        GENERAL INFORMATION:
APPLICANT: Garman,
APPLICANT: Greenst
APPLICANT: Kuo, Me
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: CRAIG, ANNE I.
REGISTRATION NUMBER: 32,976
REFERENCE/DOCKET NUMBER: 017.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 466-6000
TELEPAX: (617) 466-6040
                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (617) 466-60.
INFORMATION FOR SEQ ID NO:
                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 29 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/478,572
FILING DATE: 07-June-1995
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Shaked, Ze'ev
TITLE OF INVENTION: T CELL EPITOPES OF THE MAJOR ALLERGENS
TITLE OF INVENTION: FROM DERMATOPHAGOIDES (HOUSE DUST MITE)
NUMBER OF SEQUENCES: 207
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                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 29 cm._
TYPE: amino acid
                                                                                                                                                                                                                                                                                     Local
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15 WAFSGVAATESA 26
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Greenstein, Julia
Kuo, Mei-chang
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Evans, Sean
                          Franzen, Henry
                                        Rogers, Bruce
                                                                        Greenstein, Julia
                                                                                      Garman, Richard
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N-terminal
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Pred. No. 9
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
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APPLICANT:
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TELEPHONE: (617) 466-6000
TELEPAN: (617) 466-6040
VEORMATION FOR SEQ ID NO: 74:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: CRAIG, ANNE I.
REGISTRATION NUMBER: 32,976
REFERENCE/DOCKET NUMBER: 01
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPERATING SYSTEM: PC-DO SOFTWARE: ASCII TEXT CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
ADDRESSEE: IMMULOGIC PHARMACEUTICAL CORPORATION
STREET: 610 LINCOLN STREET
                                                                                                                                                                                                                                                 PPLICANT: CARL, Sean
APPLICANT: EVANS, Sean
APPLICANT: Shaked, Ze'ev
TITLE OF INVENTION: T CELL EPITOPES OF THE MAJOR ALLERGENS
TITLE OF INVENTION: FROM DERMATOPHAGOIDES (HOUSE DUST MITE)
TITLE OF SEQUENCES: 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: peptide FRAGMENT TYPE: N-terminal
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                                                                                                                                              STREET: OLL OTTY: WALTHAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45.5%;
Local Similarity 50.0%;
es 6; Conservation
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                                                                         COUNTRY: UZIP: 02154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
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5. 6268491
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                                                                                                                                                                                                            E: IMMULOGIC PHARMACEUTICAL CORPORATION 610 LINCOLN STREET
                                                                                                             USA
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Franzen, Henry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kuo, Mei-chang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Greenstein, Julia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
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T CELL EPITOPES OF THE MAJOR ALLERGENS
FROM DERMATOPHAGOIDES (HOUSE DUST MITE)
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Pred. No. 9
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CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/484,296

COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ASCII TEVE

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REFERENCE/DOCKET NUMBER: 017.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 466-6000
TELEPAX: (617) 466-6040
INFORMATION FOR SEQ ID NO: 11:
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tent No.
                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/44:
APPLICATION TUMBER: 07 June 1995
ATTORNEY/AGENT INFORMATION:
                                                                                                             SOFTWARE: ASCII TEXT CURRENT APPLICATION DATA: APPLICATION NUMBER: US, FILING DATE:
                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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LENGTH: 29 amino acids
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FRAGMENT TYPE: N-terminal
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APPLICATION NUMBER: 08/445,307
FILING DATE: 07 June 1995
                                                                                                                                                                                                                                                                                                                          PPLICANT: Chem, ...
PPLICANT: Evans, Sean
PPLICANT: Shaked, Ze'ev
ITLE OF INVENTION: T CELL EPITOPES OF THE MAJOR ALLERGENS
FITLE OF INVENTION: FROM DERMATOPHAGOIDES (HOUSE DUST MITE)
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                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ASCII TEXT
                                                                                              CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                           CITY: WALTHAM
REGISTRATION NUMBER:
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                                                                                                                                                                                                                                                                                                          610 LINCOLN STREET
                                                                                                                                                                                                                                                             USA
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                                                            08/445,307
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Pred. No. 9
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Search completed: July

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PCT-US95-04481-3
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Best Local Similarity
Matches 6; Conserv
                                                                                       Query Match
                                                            Matches
                                                                                                                                                                                                                                             TELEPHONE: (617) 466-6000
TELEFAX: (617) 466-6040
INFORMATION FOR SEQ ID NO: 3:
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INFORMATION FOR SEQ ID NO:
                                                                                                                                     TOPOLOGY: 11
MOLECULE TYPE:
FRAGMENT TYPE:
                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 35,279
REFERENCE/DOCKET NUMBER: 01
TELECOMMUNICATION INFORMATION:
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LENGTH: 29 amino acids
                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 08/2 FILING DATE: April 14, 1 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Pharma
NUMBER OF SEQUENCES: 54
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: FRAGMENT TYPE:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release ""
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                                                                          Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US95/04481
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15 WAFSGVAATESA 26
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                                                                                                                                                                                                                                                                                                                   Vanstone, Darlene A.
RATION NUMBER: 35,279
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                                                                                                                                                                     linear
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N-terminal
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internal
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50.0%;
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14, 1994
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                                                                          Score 35; Pred. No.
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Pred. No. 9
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                                                            Mismatches
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Title:
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Sequence:
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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length: 2000000000
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1: sp_archea:*
2: sp_bacteria
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O9z839 chlamydla p
O8rzc9 oryza sativ
O9fadl moritella j
O9amk7 vibrio vuln
O9kv76 vibrio chol
O9cgx6 lactococcus
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sphaeroides 2.4.1.";
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                                                                                                                                                                                                                                                                                      Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelberg White O., Hickey E.K., Peterson J., Utterback T., Berry Linher K., Weidman J., Khouri H., Craven B., Bownan C., Gwinn M., Nelson W., DeBoy R., Kolonay J., McClarty G., Eisen J., Fraser C.M.;
"Genome sequences of Chlamydia trachomatis MoPn and Chlappneumoniae AR39.";
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                                                      Score 42;
Pred. No.
                                         Pred. No. 65;
l; Mismatches
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Pred. No. 20;
                                                                                      05AC33C15479B192 CRC64;
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Stephens R.S.;
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K., Bas
Dodson
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RESULT 5 Q8RZC9 ID Q8RZ

Q8RZC9

PRELIMINARY;

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Best Local S
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Matches 9
Q9AMK7;
01-JUN-2001 (TrEMBL
01-JUN-2001 (TREMBL
01-MAR-2002 (TREMBL
Cadaverine/lysine a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09FAD1;
09FAD1;
01-MAR-2001
01-MAR-2001
01-JUN-2002
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01-JUN-2002
01-JUN-2002
01-JUN-2002
P0510C12.24
                                                                                                                                                                                                                                                                                                                                                     "Expression of Lysin Decarboxylase Gene Is Reg Deep-Sea Piezophilic Bacterium, Moritella japc Submitted (APR-2000) to the EMBL/GenBank/DDBJ EMBL; AB041735; BAB16717.1; ... Interpro; IPR002293; AA/rel_prmease1. Interpro; IPR00293; AA/rel_prmease1. Pfam; PF00324; aa_permeases; 1. SEQUENCE 440 AA; 45577 MW; D8DE4CADF8958CI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Oryza sativa (japonica cultivar-group).

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;

Ehrhartoideae; Oryzeae; Oryza.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sasaki T., Matsumoto T., Yamar "Oryza sativa nipponbare(GA3) clone: P0510C12.";
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Proteobacteria;
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1 (TrEMBLrel.
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(GA3) genomic DNA,
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Pred. No. 1.2e
3; Mismatches
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RA Salz
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RA Fras
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Q9CGX6
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01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence up
01-JUN-2002 (TrEMBLrel. 21, Last annotation
Cadaverine/lysine antiporter CadB, putative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rhee J., Lee J., Lee S., Chung S., Rhee J., Ch
"Vibrio vulnificus cadBA genes.";
Submitted (NOV-2000) to the EMBL/GenBank/DDBJ
EMBL; AF324470; AAK01663.1; -
InterPro; IPR002293; AA/rel_prmease1.
InterPro; IPR004841; Permeases.
Pfam; PF00324; Aa_permeases; 1.
SEQUENCE 443 AA; 46752 MW; B88FD7E18803675
Q9CGX6 PRELIMINARY,
Q9CGX6;
O1-JUN-2001 (TrEMBLrel.
O1-JUN-2001 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.

STRAIN=EL TOR N.16961 / SEROTYPE 01;

MEDLIANE=20406833; PubMed=10952301;

Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,

Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,

Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,

Ermolaeva M.D., Vamathevan J., Bass S., Qin H., Dragoi I., Sellers P.,

MCDonald L., Utterback T., Fleischmann R.D., Nierman W.C., White O.,

Salbberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.,

Fraser C.M.;
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Vibrio vulnificus
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InterPro; IPR004841; Permease.
Pfam; PF00324; aa_permeases; 1.
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TIGR; VC0280; -
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EMBL; AE004116; AAF93455.1;
                                                                                                                                                                                                                                                                                                                                                            "DNA sequence of both chromosomes cholerae.";
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Q9N978;
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EMBL; AL359773; CAB95218.1; -.
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Rajandream M.A., Barrel
Submitted (AUG-2000) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-FRIEDLIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bolotin A., Wincker P., Mauger S., Jaillon O., Malarme Weissenbach J., Ehrlich S.D., Sorokin A.; "The complete genome squence of the lactic acid bacter lactis ssp. lactis IL1403"; Genome Res. 11:731-753(2001). EMBL, AE006331; AAK05064.1; -
                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-98146435; PubMed-9477341; Ivens A.C., Lewis S.M., Bagherzad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Leishmania major.
Eukaryota; Euglenozoa;
NCBI_TaxID=5664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. STRAIN-IL1403;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Streptococcaceae; NCBI_TaxID=1360;
                                                                                                                                                                                                                                                                                          InterPro; IPR002293; AA/rel_prmease1
InterPro; IPR004841; Permease.
Pfam; PF00324; aa_permeases; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                           Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-FRIEDLIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P1295.10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=21235186; PubMed=11337471;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bacteria; Firmicutes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
ABC transporter permease protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lactococcus lactis (subsp. lactis) (Streptococcus lactis).
Bacteria; Firmicutes; Bacillus/Clostridium group; Lactobacillales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABC transporter permease YJJD OR LL0966.
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                                                                                                       285
                                                                                                                                                                                                                                                                                                                                                                                                                       D.F.;
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                                                                                                                                                                                       Similarity
6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 69.2
9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              proteome.
540 AA;
                                                                                                       WNYANIENAGAVVE 298
                                                                                                                                              WNFAGIEAAASAIQ 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FVGNETAASAIRG
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                                                                                                                                                                                                                                                                             803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TrEMBLrel. 15, Created)
(TrEMBLrel. 15, Last sequence update)
(TrEMBLrel. 21, Last annotation updat
    PRELIMINARY;
                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        acid
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                                                                                                                                                                                                          53.2%;
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11 B.G.;
o the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kinetoplastida;
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                                                                                                                                                                                                                                                                           MW;
                                                                                                                                                                                Pred.
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Pred. No. 1.4e+02;
                                                                                                                                                                                                                                Score 41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
    PRT;
                                                                                                                                                                                                                                                                         OAEBD76516440558 CRC64;
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                                                                                                                                                                                       Mismatches
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••
                                                                                                                                                                                                                                Length 803;
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                                                                                                                                                                                                                                                                                                                                                                                               genome.";
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Q9XMD1
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Best Local S
Matches 7
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01-NOV-1999 (7
01-NOV-1999 (7
01-DEC-2001 (7
Cytochrome b
                                                                                                                                                                                  01-NOV-1999
01-NOV-1999
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTB.
"The long and short of it: Branch lengths and the problem of plac
the New Zealand short-tailed bat, Mystacina.";
Mol. Phylogenet. Evol. 13:405-416(199).
-i- FUNCTION: COMPONENT OF THE UBIQUINOL-CYTOCHROME C REDUCTASE
COMPLEX (COMPLEX III OR CYTOCHROME B-C1 COMPLEX), WHICH IS A
RESPIRATORY CHAIN THAT GENERATES AN ELECTROCHEMICAL POTENTIAL
                                                        SEQUENCE FROM N.A.
MEDLINE=20072938; PubMed=10603267;
Kennedy M., Paterson A.M., Morales
Spencer H.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota;
                                                                                                                                              Mitochondr:
                                                                                                                                                      Pteronotus parnellii (Parnell's mustached
                                                                                                                                                                  CYTB.
                                                                                                                                                                         Cytochrome b
                                                                                                                                                                                                                Q9XMD1;
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                                                                                                                                                                                                                                                                                                                                                                          EMBL; AF144070; AAD34999.1; -.
InterPo; IPR00179; Cyt_b_b6
Pfam; PF00033; cytochrome_b_N; 1.
PROSITE; PS00192; CYTOCHROME_B_HEME; 1.
Electron transport; Heme; Mitochondrion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kennedy M., Paterson A.M.,
Spencer H.G.;
"The long and short of 't
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                       NCBI_TaxID=59476;
                                                                                                                  Pteronotus
                                                                                                                          Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE=20072938; PubMed=10603267;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mitochondrion
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=94956;
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                                                                                                                                                                                                                                                                                                           7; Conservative
                                                                                                                                                                                                                                                                                         WNFAGIEAAASAIQ
                                                                                                                                                                                                                                                                       WNFGSLLAACLAVQ
                                                                                                                                   Metazoa;
                                                                                                                                                                        ) (TrEMBLrel.
l (TrEMBLrel.
b (Fragment).
                                                                                                                                                                                                                                                                                                                                                  134 AA;
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                                                                                                                                                                                                     (TrEMBLrel.
                                                                                                                                                                                                                        PRELIMINARY;
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15054
                                                                                                                           Chordata; Craniata;
Chiroptera; Microch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chordata;
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                                                                                                                                                                                                                                                                                                                    50.0%;
                                                                                                                                                                                  12,
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                                                                                                                                                                                                                                                                                                                                                  MW;
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                                                                                                                                                                                                                                                                                                           Score 40; DB Pred. No. 50; 2; Mismatches
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Last sequence up
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Last annotation updat
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                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                 54FA6146B46D3C03
                                                                                                                           Microchiroptera; Mormoopidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Microchiroptera;
                                                                  J.C.,
                                                                                                                                                                                                                        134
                                                                                                                                    Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vertebrata; Euteleostom1;
iroptera; Mormoopidae;
                                                                  Parsons
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                                                                                                                                                                                                                                                                                                                                                                             Respiratory chain;
                                                                                                                                                       bat).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ARE NOT COVALENTLY
                                                                  Winnington A.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REDUCTASE
WHICH IS A
CAL POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Winnington A.P.,
                                               of placing
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QBUHB 11 QBUHB AC QBUHB AC QBUHB AC QBUHB AC QBUHB DT 01-JU DT 01-
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Best Local S
Matches 8
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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Okura V.K., Zhou Y., Chen L., Wood G.E., Almeida N.F. Jr., Woo L., Chen Y., Paulsen I.T., Eisen J.A., Karp P.D., Bovee D. Sr., Chapman P., Clendenning J., Deatherage G., Gillet W., Grant C., Kutyavin T., Levy R., Li M.-J., McClelland E., Palmieri A., Raymond C., Rouse G., Saenphimmachak C., Wu Z., Romero P., Gordon D., Zhang S., Yoo H., Tao Y., Biddle P., Jung M., Krespan W., Perry M., Gordon-Kamm B., Liao L., Kim S., Hendrick C., Zhao Z.-Y., Dolan M., Chumley F., Tingey S.V., Tomb J.-F., Gordon M.P., Olson M.V., Rester E.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q8UH81;
                                                                                                                                                                                                                                                                                          Goodner B., Hinkle G., Gattung S., Miller N., Blanchard M., Qurollo B., Goldman B.S., Cao Y., Askenazi M., Halling C., w. Houmiel K., Gordon J., Yaudin M., Iartchouk O., Epp A., Liu Wollam C., Allinger M., Doughty D., Scott C., Lappas C., Mar Flanagan C., Crowell C., Gurson J., Lomo C., Sear C., Strub
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BOUND TO THE PROTEIN (BY SIMILARITY).

1 SUBUNIT: THE MAIN SUBUNITS OF COMPLEX B-C1 ARE: CYTOCHOME CI AND THE RIESKE PROTEIN (BY SIMILARITY).

1 SIMILARITY: BELONGS TO THE CYTOCHROME B FAMILY.

EMBL; AF144071; AAD35000.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2002 (TERMBLREL 21, C
01-JUN-2002 (TERMBLREL 21, L
01-JUN-2002 (TERMBLREL 21, L
Hypothetical protein Atu0802.
                                                                                                      Hypothetical SEQUENCE 3
                                                                                                                                                   EMBL; AE009047; AAL41818.1; -. EMBL; AE008013; AAK86611.1; -.
                                                                                                                                                                                                "Cielo C., Siater S.;
"Genome sequence of the plant Agrobacterium tumefaciens C58.
Science 294:2323-2328(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=21608551; PubMed=11743194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Science 294:2317-2323(2001).
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-21608550; PubMed-11743193; Wood D.W., Setubal J.C., Kaul R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rhizobiaceae; Rhizobium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATU0802 OR AGR_C_1468.
Agrobacterium tumefaciens (strain C58 / ATCC 33970).
Bacteria; Proteobacteria; alpha subdivision; Rhizobiaceae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro, IPRO00179; Cyt_b_b6.
Pfam; PF00033; Cytochrome_b_N; 1.
PROSITE; PS00192; CYTOCHROME_B, HEME; 1.
Electron transport; Heme; Mitochondrion; Respiratory chain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ÷
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          genome of the natural genetic
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       Similarity
8; Conserv
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7; Conser
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134 AA;
                                                                                                    al protein;
323 AA; 3
       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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TWO HEME GROUPS (B562 AND B566) WHICH ARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         134
15086 MW;
                                                                                                    35066 MW;
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Matches 7
  SEQUENCE FROM N.A.
STRAIN-27642, AND 35483;
Lewis-Critt N., Porter C.A., Baker R.J.;
"Molecular Systematics of the Family Mormoopidae (Chiroptera)
"Molecular Systematics of the Family Mormoopidae (Chiroptera)
Mitochondrial cytochrome b and Nuclear RAG-2 Gene Sequences.";
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
-1- FUNCTION: COMPONENT OF THE UBIQUINOL-CYTOCHROME C REDUCTAS
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Mammalia; Eutheria;
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InterPro; IPR004837; NaCa_Exmemb.
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Smith D.R., Doucette-Stamm L.A., DeLoughery C., Lee H.-M., Dubois Aldredge T., Bashirzadeh R., Blakely D., Cook R., Gilbert K., Harrison D., Hoang L., Keagle P., Lumm W., Pothier B., Qiu D., Spadafora R., Vicare R., Wang Y., Wierzbowski J., Gibson R., Jiwani N., Caruso A., Bush D., Safer H., Patwell D., Prabhakar S., McDougall S., Shimer G., Goyal A., Pietrovski S., Church G.M., Daniels C.J., Mao J.-I., Rice P., Noelling J., Reeve J.N.; "Complete genome sequence of Methanobacterium thermoautotrophicum deltaH: functional analysis and comparative genomics."; J. Bacteriol. 179:7135-7155(1997).
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Search completed: July 3, 2003, 14:06:48 Job time: 25 secs
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CC -!- COFACTOR: TWO HEME GROUPS (B552 AND B565) WHICH ARE NOT COVALENTLY CC BOUND TO THE PROTEIN (BY SIMILARITY).

CC -!- SUBUNIT: THE MAIN SUBUNITS OF COMPLEX B-C1 ARE: CYTOCHROME B, CC CYTOCHROME C1 AND THE RIESKE PROTEIN (BY SIMILARITY).

CC -!- SIMILARITY: BELONGS TO THE CYTOCHROME B FAMILY.

CR MBL; AF338672; AAX21930.1; --
DR EMBL; AF338672; AAX21930.1; --
DR INCEPTO: IPRO00179; CYL_b_b6.

DR Pfam; PF00033; CYTOCHROME_B_C; 1.

PFAm; PF00033; CYTOCHROME_B_C; 1.

PFAM; PF00033; CYTOCHROME_B_DC; UNKNOWN_1.

RROSITE; PS00193; CYTOCHROME_B_DO; UNKNOWN_1.

RROSITE; PS00193; CYTOCHROME_B_DO; UNKNOWN_1.
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YDEL_ECOLI
TNP_ECOLI
ESA6_MYCLE
CADB_ECOLI
YAUA_SCHPO
ARVC_HUMAN
ARVC_MOUSE
TNP2_ECOLI
OCT1_MACEU
RBMS_XENLA
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NOEA_RHIME
FHUB_BACSU
G3P_ESCBL
SPCQ_HUMAN
CYB_EPICE
CYB_ZALCA
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J. Immunol. 15',
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30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
31-JUN-2002 (Rel. 41, Last annotation update)
6 kDa early secretory antigenic target (ESAT-6).
6 kDa early secretory antigenic target (ESAT-6).
6 ESAT6 OR RV3895 OR MTY027.10.
Mycobacterium tuberculosis, and
Mycobacterium bovis.
Mycobacteria; Actinobacteria; Actinobacteria; Actinobacteria; Actinobacteria; Actinobacteria; Actinobacteria; Mycobacteriae; Mycobacterium.
                                        [4]
SEQUENCE FROM N.A.
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SEQUENCE FROM N.A.
(Carpenter L., White O.,
Fleischmann R.D., Alland D., Eisen J.A., Carpenter L., White O.,
Fleischmann R.D., Bodson R., Gwinn M.L., Haft D., Hickey E.,
Peterson J., DeBoy R., Dodson R., Gwinn M.L., Ermolaeva M.D., Salzberg
Kolonay J.F., Nelson W.C., Umayam L.A., Ermolaeva M.D., Salzberg
nelcher A., Utterback T., Weidman J., Khouri H., Gill J., Mikula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-98295987; PubMed-9634230;
Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Gardon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Bavies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Rutter S., Seeger K., Skelton S., Squares S., Squares R., Sulston J.E., Taylor K., Whitehead S., Barrell B.G.; "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence.";
Nature 393:537-544(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ESA6_MYCTU
Q57165; 084
laboratory strains.";
Submitted (APR-2001) to
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SPECIES-M.tuberculosis; STRAIN-EMEDLINE-95247251; PubMed-7729876;
                                                                                                                                                                                                                                                                                                                                                           SPECIES=M.tuberculosis;
MEDLINE=98295987; PubMed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SPECIES=M.tuberculosis; STRAIN=H37Rv; MEDLINE=95204931; PubMed=7897219;
                                 "Whole genome comparison
                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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KEFA_ECOLI
DYHC_CAEEL
YM94_MYCLE
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                       Nodulation protein noeA.

NOEA OR RA0416 OR SMA0773.

Rhizobium meliloti (Sinorhizobium meliloti).

Plasmid pSymA (megaplasmid 1).

Bacteria; Proteobacteria; alpha subdivision; Rhizobiaceae group; Rhizobiaceae; Sinorhizobium.
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-1- FUNCTION: NOT KNOWN. ELICITS HIGH LEVEL OF INF-GAMMA FROM MEMORY EFFECTOR CELLS DURING THE FIRST PHASE OF A PROTECTIVE IMMUNE
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Mahairas G.G., Sabo P.J., Hickey M.J., Sinc
"Molecular analysis of genetic differences
BCG and virulent M. bovis.";
J. Bacteriol. 178:1274-1282(1996).
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Singh B., Siddiqui Z., Sing
"ESAT-6 gene of a clinical
India.";
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Wipat A., Brign
Harwood C.R.;
"The yvsA-yvqA
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                                                   SEQUENCE FROSTRAIN=168;
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Barloy-Hubler F., Bowser L., Capela D., Galibert F., Gouzy J.,
Gurjal M., Hong A., Huizar L., Hyman R.W., Kahn D., Kahn M.L.,
Kalman S., Keating D.H., Palm C., Peck M.C., Surzycki R., Wells
Yeh K.-C., Davis R.W., Federspiel N.A., Long S.R.;
"Nucleotide sequence and predicted functions of the entire
sinorhizobium meliloti pSymA megaplasmid.",
Proc. Natl. Acad. Sci. U.S.A. 98:9883-9888(2001).
--- FUNCTION: NOT KNOWN; DOES NOT SEEM TO PARTICIPATE IN NOD FAC
SYNTHESIS BUT REQUIRED FOR NODULATION ON SOME SPECIFIC MEDIC
SPECIES SUCH AS M.LITTORALIS.
                                                                                                                                                                                                 FHUB
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                         MEDLINE~98304083; PubMed-9639930; Wipat A., Brignell C.S., Guy J.B.,
                                                                                                                                                                      Bacillus subtilis.
Bacteria; Firmicutes;
                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AE007232; AAK65074.1; -.
Interpro; IPRO00051; SAM-bind.
Plasmid; Nodulation; Complete
SEQUENCE 476 AA; 53673 MW;
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D., Galibert F., Gouz
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RA Azewedo V., Bertero M.G., Bessieres P., Bolottin A., Borchert S.,
RA Borriss R., Boursier L., Brans A., Braun M., Brignell S.C., Bron S.,
RA Borriss R., Boursier L., Brans A., Braun M., Brignell S.C., Bron S.,
RA Boroillet S., Bruschi C.V., Caldwell B., Capuano V., Carter N.M.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Denizot F., Devine K.M., Dusterhoft A., Ehrlich S.D., Emmerson P.T.,
RA Entlan K.D., Errington J., Fabret C., Ferrari E., Foulger D.,
RA Ghim S.Y., Glaser P., Goffeau A., Golightly E.J., Galleron N.,
RA Gliseppi G., Guy B.J., Haga K., Halech J., Harwood C.R., Henaut A.,
RA Gliseppi G., Guy B.J., Haga K., Halech J., Harwood C.R., Henaut A.,
RA Hilbert H., Holsappel S., Hosono S., Hullo M.F., Itaya M., Jones L.,
RA Kurita K., Lapidus A., Lardinois S., Lauber J., Lazarevic V.,
RA Kurita K., Lapidus A., Lardinois S., Lauber J., Lazarevic V.,
RA Kurita K., Lapidus A., Liu H., Masuda S., Mauel C., Medigue C.,
RA Kurita K., Lapido R.P., Mizuno M., Moestl D., Nakai S., Noback M.,
RA Moone D., O'Reilly M., Ogawa K., Ogiwara A., Oudega B., Park S.H.,
RA Parro V., Pohl T.M., Portetelle D., Porwollik S., Prescott A.M.,
RA Presecan E., Pujic P., Purnelle B., Rapoport G., Rey M., Reynolds S.,
RA Rieger M., Rivolta C., Rocha E., Roche B., Rose M., Sadaie Y.,
RA Sekiguchi J., Sekowska A., Seror S.J., Serror P., Shin B.S., Soldo B.,
RA Sekiguchi J., Sekowska A., Seror S.J., Serror P., Shin B.S., Soldo B.,
RA Tosato V., Uchiyama S., Vandenbol M., Vannier F., Vassarotti A.,
RA Yoshida K., Yashanotto H., Yamane K., Yasta K.,
RA Yoshida K., Yashanotto H., Yamane K., Yasta K.,
Tataka T., Terpstra P., Togonoli A.,
The complete genome sequence of the Gram-positive bacterium Bacillus
                                                                    EMBL; AJ223978; CAA11720.1; -.
EMBL; A9721; CAB15337.1; -.
EMBL; A97283; -, NOT_ANNOTATED_CDS.
Subtilist; BG11389; fhuB.
InterPro; IPR000515; BPD_transp.
InterPro; IPR000525; FeCCD.
Pfam; PF01023; FeCCD; 1.
ProDom; PD001557; FeCCD; 1.
PROSITE; PS00402; BPD_TRANSP.INN_MEMBR; FALSE_NEG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                        Transport;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=93268086; PubMe
Schneider R., Hantke K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FUNCTION: THIS IS ONE OF THE PROTEINS INVOLVED IN THE HIGH-
AFFINITY TRANSPORT OF IRON(III)-FERRICHROME INTO THE CELL.
SUBCELLULAR LOCATION: Integral membrane protein (Potential).
SIMILARITY: BELONGS TO THE BINDING-PROTEIN-DEPENDENT TRANSPORT
SYSTEM PERMEASE FAMILY. FECCD SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Microbiol. 8:111-121(1993).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X93092; CAA63643.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       390:249-256(1997).
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transport; Transmembrane; 78 POTENTIAL.
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Borchert S.
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Matches 7
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01-MAR-1992 (Rel.
15-JUN-2002 (Rel.
Glyceraldehyde 3-p
                                                   PROSITE; PSO
Glycolysis;
NON_TER
BINDING
ACT_SITE
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EMBL; M63359;
EMBL; M63360;
HSSP; P06977;
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P24749;
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J. Gen. Microbiol. 137:1911-1921(1991)
-i- CATALYIIC ACTIVITY: D-glyceraldehyde 3-phosphate + F. NAD(+) = 3-phospho-D-glyceroyl phosphate + NADH.
                                                                                                                                                                                                                                                                                                                                                                                                                                      This
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-!- PATHWAY: Second phase of glycolysis; fire
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STRAIN-AFCC 29907, ATCC 33429, an
MEDLINE-92065252; PubMed-1955870;
                  SEQUENCE
                                                                                                                                                                                                                                                                                                                  entitles requires a license agreement (S or send an email to license@isb-sib.ch).
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                                       NON_TER
                                                                                                                                                                              Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            awrence J.G., Ochman H., Hartl D.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fragment).
                                                                                                                                          SUBCELLULAR LOCATION: Cytoplasmic.
SIMILARITY: BELONGS TO THE GLYCERALDEHYDE 3-PHOSPHATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBUNIT: HOMOTETRAMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEHYDROGENASE FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                  SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the EA
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294 AA;
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                                                                                                                    Oxidoreductase;
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AAA23852.1;
AAA23855.1;
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el. 41, Last annotation update)
3-phosphate dehydrogenase (EC
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Pred. No.
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                                                       GLYCERALDEHYDE 3-PHOSPHATE. ACTIVATES THIOL GROUP DURING
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7E4D75CAB36AB8FB CRC64;
                  18562CB398177D8B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and ATCC 33430;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             step
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                                                                                                                                                                                                                                                                                                                                                                                               restrictions on
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           bacteria.";
                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL outstation
                                                          CATALYSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                    a collaboration
                                                                                                                                                                                                                                                                                                                                                        for
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Query Match Best Local Similarity

51.9%; 58.3%;

Score 40; Pred. No.

DB 19;

1;

Length 294;

В S

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RESULT S

SPCQ_HUMAN

ID SPCQ_H
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DT 15-JUN
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DT SEQUEN
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                                                                                                                                                                                                                                                                                                                           XVIII. The complete sequences of 100 new cDNA clones a code for large proteins in vitro.";
DNA Res. 7:273-281(2000).
-I- ALTERNATIVE PRODUCTS: 4 isoforms; 1 (shown here),
produced by alternative splicing.
-I- TISSUE SPECIFICITY: Abundantly expressed in brain
                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-Brain;
MEDLINE-20450683; PubMed-10997877;
MEDLINE-20450683; PubMed-10997877;
Nagase T., Kikuno R., Nakayama M., Hirosawa M., Ohara O.;
"Prediction of the coding sequences of unidentified human "Prediction of the coding sequences of 100 new cDNA clones from XVIII. The complete sequences of 100 new cDNA clones from XVIII.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SPCQ_HUMAN STANDARD; PRT; 2564 AA.
O9H254; O9HCD0; O9H3G8; O9H1K7; O9H1K8; O9H1K9;
15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Spectrin beta chain, brain 3 (Spectrin, non-e)
(Beta-IV spectrin)
SpTBN4 OR STTBN3 OR KIAA1642.
   EMBL;
EMBL;
HSSP;
Genew;
                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. (ISOFORMS 1 TO 4).
MEDLINE-20539976; PubMed-11086001;
Berghs S., Aggujaro D., Dirkx R. Jr., Maksimova E., Stabach
Hermel J.-M., Zhang J.-P., Philbrick W., Slepnev V., Ort T.,
Solimena M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tse W.T., Tang J., Jin O., Korsgren C., John K.M., Kung A.L., Gwynn B., Peters L.L., Lux S.E.;
"A new spectrin, beta-IV, has a major truncated isoform that associates with promyelocytic leukemia protein nuclear bodies nuclear matrix.";
                                                                                                                                       entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. (ISOFORM 1).
MEDLINE=21316449; PubMed=11294830;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 386-2382 FROM N.A. (ISOFORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "BetaIV spectrin, a new spectrin localized at axon and nodes of ranvier in the central and peripheral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biol. Chem. 276:23974-23985(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cell Biol. 151:985-1002(2000).
              L; AF311855; AAG42473.1; --
L; AF082075; AAG38874.1; --
L; AY004226; AAF93172.1; --
L; AY004226; AAF93173.1; --
L; AY004227; AAF93173.1; --
L; AB046862; BAB13468.1; --
L; OQ1082; 1BKR
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11K8; Q9H1K9;
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PRINTS; PR00683; SPECTRINPH.
SMART; SM00033; CH; 2.
SMART; SM00033; PH; 1.
SMART; SM00233; PH; 1.
SMART; SM00150; SPEC; 16.
PROSITE; PS000019; ACTININ_1; 1
PROSITE; PS000020; ACTININ_2; 1
PROSITE; PS50003; PH_DOMAIN; 1
PROSITE; PS50003; PH_DOMAIN; 1
CYB_EPICE
048043;
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16-OCT-2001
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Alternative sp
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Pfam; PF00169; PH; 3
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Calponin-like.
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MISSING (IN REF. 2).
MISSING (IN REF. 2).
L -> S (IN REF. 2).
E -> K (IN REF. 2).
E -> K (IN REF. 2).
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NQENQLRAQQWMQKLHDQLELQH -> CLIIHPALLHPPWE
PPYLPRSSS (IN ISOFORM 2).
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AVQAAEGLLRQGNIYGEQAQEAVTRLLEK ->
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Q36266;
Q1-NOV-1997 (Rel. 3
Q1-NOV-1997 (Rel. 3
30-MAY-2000 (Rel. 3
                                                                                                                                                                                       Cytochrome B.
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                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                        MTCYB OR COB OR CYTB.
Zalophus californianus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR000179; Cyt_b_b6.
Pfam; PF00032; cytochrome_b_v; 1.
Pfam; PF00033; cytochrome_b_N; 1.
PROSITE; PS00193; CYTOCHROME_B_QO; 1.
PROSITE; PS00192; CYTOCHROME_B_HEME;
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Submitted (SEP-1996) to the EMBL/GenBank/DDBJ databases
                                                                                                                    Mitochondrion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                METAL
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EMBL; U69778;
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  SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION: COMPONENT OF THE UBIQUINOL-CYTOCHROME C REDUCTASE COMPLEX (COMPLEX III OR CYTOCHROME B-C1 COMPLEX), WHICH IS A RESPIRATORY CHAIN THAT GENERATES AN ELECTROCHEMICAL POTENTIAL COUPLED TO ATP SYNTHESIS (BY SIMILARITY).

COFACTOR: TWO HEME GROUPS (B562 AND B566) WHICH ARE NOT COVALENTLY BOUND TO THE PROTEIN (BY SIMILARITY).

SUBUNIT: THE MAIN SUBUNITS OF COMPLEX B-C1 ARE: CYTOCHROME B, CYTOCHROME C1 AND THE RIESKE PROTEIN (BY SIMILARITY).

SIMILARITY: BELONGS TO THE CYTOCHROME B FAMILY.
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AAC01812.1; -.
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41744 MW;
                                                                   Chordata; C
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                                                                   Craniata; Vertebrata; Euteleostomi; Pinnipedia; Otariidae; Zalophus.
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(HEME B566 AXIAL LIGAND).
(HEME B562 AXIAL LIGAND).
(HEME B566 AXIAL LIGAND).
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15-DEC-1998 (Rel. 3
15-DEC-1998 (Rel. 3
15-JUL-1999 (Rel. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Arnason U., Bodin K., Gullberg A., Ledje C., Mouchaty S.;
"A molecular view of pinniped relationships with particular emph on the true seals.";
on the true seals.";
J. Mol. Evol. 40:78-85(1995).
-I- FUNCTION: COMPONENT OF THE UBIQUINOL-CYTOCHROME C REDUCTASE COMPLEX (COMPLEX III OR CYTOCHROME B-C1 COMPLEX), WHICH IS I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                *Mode of Thistacl to clone a pel gene encoding a highly alkaline, Tuse of Thistacl to clone a pel gene encoding a highly alkaline, asparagine-rich pectate lyase isozyme from an Erwinia chrysanthemi EC16 mutant with deletions affecting the major pectate lyase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ERWCH
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HSSP; P00157; 1BE3.
InterPro; IPR000179; Cyt_b_b6.
Pfam; PF00032; cytochrome_b_C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BOUND TO THE PROTEIN.

-i- SUBUNIT: THE MAIN SUBUNITS OF COMPLEX B-C1 ARE:
CYTOCHROME C1 AND THE RIESKE PROTEIN.

-i- SIMILARITY: BELONGS TO THE CYTOCHROME B FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESPIRATORY CHAIN THAT GENERATES AN ELECTROCHEMICAL POTENTIAL COUPLED TO ATP SYNTHESIS.

-I- COFACTOR: TWO HEME GROUPS (B562 AND B566) WHICH ARE NOT COVALENTLY
                                                                                                                                                                                                                                                                                                                                                                   STRAIN=EC16
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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                                            SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                           MEDLINE=95362691; PubMed=7635842;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pectobacterium.
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                                                                                                                 Bacteriol.
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ps00192; cyToCHROME_B_QO; 1.
ps00193; CYTOCHROME_B_QO; 1.
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"Characterization of the pell gene encoding a novel pectate lyase Tryinia chrysanthemi 397."

"In Mol. Microbiol. 16:1183-1195(1995).

"COLOR PARTIALLY METHYLATED PECTIN.

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"OLIGOBACCHARIDES WITH 4-deoxy-alpha-D-gluc-4-enuronosyl group cliposaccharides with 4-deoxy-alpha-D-gluc-4-enuronosyl group chair non-reducing ends.

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01-FEB-1995 (Rel. 31, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
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Hypothetical transport protein yjdE.
YJDE OR B4115 OR 25717 OR ECS5097.
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Lojkowska E., Masclaux C., Boccar
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X81136; CAA57041.1;
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MEDLINE-21156231; PubMed-11258796;
Hayashi T., Makino K., Ohnishi M., Kurokawa K., Ishii K., Yokoya Han C.-G., Ohtsubo E., Nakayama K., Murata T., Tanaka M., Tobe T. Iida T., Takami H., Honda T., Sasakawa C., Ogasawara N., Yasunag Kuhara S., Shiba T., Hattori M., Shinagawa H.;
"Complete genome sequence of enterohemorrhagic Escherichia coli 0.157:H7 and genomic comparison with a laboratory strain K-12.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-21074935; PubMed-11206551;

Perna N.T., Plunkett G. III, Burland V., Mau B., Glasner J.D.,

Rose D.J., Mayhew G.F., Evans P.S., Gregor J., Kirkpatrick H.A.,

Posfai G., Hackett J., Klink S., Boutin A., Shao Y., Miller L.,

Grotbeck E.J., Davis N.W., Lim A., Dimalanta E.T., Potamousis K.,

Apodaca J., Anantharaman T.S., Lin J., Yen G., Schwartz D.C.,

Welch R.A., Blattner F.R.;

"Genome sequence of enterohaemorrhagic Escherichia coli 0157:H7."
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Mau B., Shao Y.;
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MEDLINE-97426617; Pu
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U14003; AAA97014.1; ALT_F)
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o-Vides J., Glasner J.D., Rode C.K., Mayhew G.F
N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J.
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T., Tanaka M., Tobe T.,
Ogasawara N., Yasunaga T.,
H.;
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Matches 5
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MEDLINE=21128732; PubMed=11234002;

Cole S.T., Eiglmeier K., Parkhill J., James K.D., Thomson N.R.,

Wheeler P.R., Honore N., Garnier T., Churcher C., Harris D.,

Mungall K., Basham D., Brown D., Chillingworth T., Connor R.,

Mungall K., Basham D., Brown D., Chillingworth T., Connor R.,

Davies R.M., Devlin K., Duthoy S., Feltwell T., Fraser A., Hamlin N.

Holroyd S., Hornsby T., Jagels K., Lacroix C., Maclean J., Moule S.,

Murphy L., Oliver K., Quail M.A., Rajandream M.A., Rutherford K.M.,

Rutter S., Seeger K., Simon S., Simmonds M., Skelton J., Squares R.,

Rutter S., Seeger K., Taylor K., Whitehead S., Woodward J.R.,
                                                                                                                                  01-NOV-1991 (Rel. 20, Created)
01-NOV-1991 (Rel. 20, Last sequence up
15-JUN-2002 (Rel. 41, Last annotation
Probable cadaverine/lysine antiporter.
CADB OR B4132 OR 25735 OR ECS5114.
SEQUENCE FROM N.A.
MEDLINE=92105022; PubMed=1370290;
Watson N. Dunyak D.S., Rosey E.L., S
"Identification of elements involved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
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                                                                  Escherichia.
NCBI_TaxID=562,
                                                                                                          Escherichia coli, and Escherichia coli 0157:H7.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Massive gene decay in the leprosy bacillus."; nature 409:1007-1011(2001).
-i- SUBCELULIAR LOCATION: Secreted (By similar-i- SIMILARITY: BELONGS TO THE ESAT6 FAMILY.
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Barrell B.G.
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Actinomycetales; Corynebacterineae;
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                                                                                              Bacteria; Proteobacteria;
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Y14967; CAA75200.1;
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M -> T (IN REF. 1).
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Slonczewski J.L., Olson E.R.;
d in transcriptional regulation
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EcoGene; EG10132; cadB.
InterPro; IPR002293; AA/rel_prmeasel.
InterPro; IPR004841; Permease.
InterPro; IPR004754; R/O_antiport.
Pfam; PF00324; aa_permeases; 1.
TIGRFAMs; TIGR00905; 2A0302; 1.
Transport; Antiport; Amino-acid transport; Inner membrane; Complete proteome.
TRANSMEM 7 27 POTENTIAL.
                                                                                                                                                                                                                                                                                                                                 EMBL; M67452; AAA23532.1; -. EMBL; M76411; AAA22535.1; -. EMBL; U14403; AAA97032.1; -. EMBL; AE000486; AAC77093.1; -. EMBL; AE005647; AAC59332.1; -. EMBL; AP002566; BAB38537.1; -.
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MEDLINE=21156231; PubMed=11258796;
Hayashi T., Makino K., Ohnishi M., Kurokawa K., Ishii K., Yokoyama Han C.-G., Ohtsubo E., Nakayama K., Murata T., Tanaka M., Tobe T., Iida T., Takami H., Honda T., Sasakawa C., Ogasawara N., Yasunaga Kuhara S., Shiba T., Hattori M., Shinagawa H.;
"Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and genomic comparison with a laboratory strain K-12.";
DNA Res. 8:11-22(2001).
                                                                                                                                                                                                                                                                            PIR;
PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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"Nucleotide sequence of the Escherichia coli
neutralization of low extracellular pH.";
J. Bacteriol. 174:2659-2669(1992).
[3]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -i- SUBCELLULAR LOCATION: Integral membrane protein. Inner membrane induction: AT LOW PH IN THE PRESENCE OF LYSINE AND ACHIEVES MAXIMAL LEVEL UNDER MAXEROBIC CONDITIONS.
-i- SIMILARITY: BELONGS TO THE ARCD/CADB/GERAB/LYSI FAMILY OF
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Welch R.A., Blattner F.R.;
"Genome sequence of enterohaemorrhagic Escherichia coli O157:H7.";
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MEDLINE-21074935; PubMed-11206551;
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MEDLINE-95334362; PubMed-7610040;
Burland V.D., Plunkett G. III, Sofia
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MEDLINE=92210511; PubMed=1556085
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Bacteriol. 174:530-540(1992).
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RA Sgouros J., Peat N., Hayles J., Baker S., Basham D., Bowman S.,
RA Brooks K., Brown D., Brown S., Chillingworth T., Churcher C.M.,
RA Brooks K., Brown D., Brown S., Chillingworth T., Churcher C.M.,
RA Gollins M., Connor R., Cronin A., Davis P., Feltwell T., Fraser A.,
RA Holroyd S., Hornsby T., Howarth S., Huckle E.J., Hunt S., Jagels K.,
Janes K., Jones M., Leather S., McDean J.,
RA Holroyd S., Hornsby T., Howarth S., Huckle E.J., McLean J.,
RA Holroyd S., Hornsby T., Howarth S., Huckle E.J., Hunt S., Jagels K.,
RA Janes K., Jones M., Leather S., Kobonald S., McLean J.,
RA Mooney P., Moule S., Mungall K., Murphy L., Niblett D., Odell C.,
RA Oliver K., O'Neil S., Pearson D., Quail M.A., Rabbinowitsch E.,
RA Mooney P., Moule S., Mungall K., Murphy L., Niblett D., Odell C.,
RA Holroyd S., Rutter S., Saunders D., Seeger K., Sharp S.,
RA Ritherford K., Rutter S., Saunders D., Seeger K., Sharp S.,
RA Weltjens I., Vanstreels E., Rieger M., Squares S., Stevens K.,
RA Taylor K., Taylor R.G., Tivey A., Walsh S.V., Waxren T., Whitehead S.,
RA Weltjens I., Vanstreels E., Rieger M., Schaefer M., Mueller Auer S.,
RA Gabel C., Fuchs M., Fritzc C., Holzer E., Moestl D., Hilbert H.,
RA Gabel C., Fuchs M., Fritzc C., Holzer E., Woestl D., Hilbert H.,
RA Gabel C., Fuchs M., Wedler H., Wambutt R., Purnelle B.,
RA Goffeau A., Cadieu E., Dreano S., Gloux S., Lelaure V., Mottler S.,
RA Galibert F., Aves S.J., Xiang Z., Hunt C., Moore K., Hurst S.M.,
RA Galibert F., Aves S.J., Xiang Z., Hunt C., Moore K., Hurst S.M.,
RA Galibert F., McCombie W.R., Paulsen I., Potashkin J.,
RA Daga R.R., Cruzado L., Jimenez J., Sanchez M., Garzon A., Thode G.,
RA Daga R.R., Cruzado L., Jimenez J., Sanchez M., del Rey F., Benito J.,
RA Shakovski G.V., Ussery D., Barrell B.G., Nurse P.;
"The genome sequence of Schizosaccharomyces pombe.";
RI Nature 415.817-810/2012.
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Hypothetical protein C26A3.10
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Eukaryota; Fungi; Ascomycota; Schizosaccharomycetes;
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                                                                    e genome sequence of Schizosaccharomy ure 415:871-880(2002). FUNCTION: GTPass-activating protein factor family (Potential).
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16-OCT-2001 (Rel. 40, Created)

16-OCT-2001 (Rel. 40, Last sequence update)

15-JUN-2002 (Rel. 41, Last annotation update)

15-JUN-2002 (Rel. 41, Last annotation update)
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the region deleted in velo-cardio-facial syndrome.";
Genomics 41:75-83(1997)
-!- FUNCTION: INVOLVED IN PROTEIN-PROTEIN INTERACTIONS
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Puech A., Parimoo S., Morrow B., Skoultchi A.,
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MEDLINE=97271559; PubMed=9126485;
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                                                                                                                                                                                                                 JUNCTIONS.

ALTERNATIVE PRODUCTS: 2 ISOFORMS; A SHORT FORM AND A LONG FORM (SHOWN HERE); ARE PRODUCED BY ALTERNATIVE SPLICING.

TISSUE SPECIFICITY: FOUND IN ALL THE EXAMINED TISSUES INCLUDING HEART BRAIN, LIVER AND KIDNEY. FOUND AT LOW LEVEL IN LUNG.

DISEASE: GENE DELETED IN VELO-CARDIO-FACIAL SYNDROME (VCFS) AND IS HEMLIXYGOUS IN ALL VCFS PATIENTS WITH INTERSTITIAL DELETIONS. THIS HEMLIXYGOUS IN ALL VCFS PATIENTS WITH ETIOLOGY OF SOME OF THE PHENOTYPES ASSOCIATED WITH VCFS CHARACTERIZED BY A WIDE SPECTRUM PHENOTYPES, INCLUDING CONOTRUNCAL HEART DEFECTS, CLEFT PALATE AND
                                                                                                                                    SIMILARITY: BELONGS TO THE BETA-CATENIN FAMILY SIMILARITY: CONTAINS 10 ARM REPEATS.
      European
SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                       PHENOTYPES, INCLUDING CONOTRUNCAL FACIAL DYSMORPHOLOGY.
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Catarrhini;
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P98203;
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DOMAIN
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL;
                                            -I- FUNCTION: INVOLVED IN PROTEIN-PROTEIN INTERACTIONS JUNCTIONS (BY SIMILARITY).
-I- SIMILARITY: BELONGS TO THE BETA-CATENIN FAMILY.
                                                                          "The armadillo repeat region targets junctions.";
J. Cell Sci. 113:4121-4135(2000).
                                                                                                       SEQUENCE FROM N.A.
MEDLINE-20512094; PubMed-11058098;
Kaufmann U., Zupplager C., Walbler Z., Rudiger M., Urbich C.
Martin B., Jockusch B.M., Eppenberger H., Starzinski-Powitz
                                                                                                                                                        Mus musculus (Mouse).
Mus musculus (Mouse).

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Rodentia;
                                                                                                                                                                                                         16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Armadillo repeat protein deleted in velo-cardio-facial
                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
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                 This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR000225; Armadille Pfam; PF00514; Armadillo_seg; SMART; SM00185; ARM; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genew;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS50176; ARM_REPEAT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MIM; 192430;
                                     -!- SIMILARITY: CONTAINS 10 ARM REPEATS.
                                                                                                                                                       NCBI_TaxID=10090
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                                                                                                                                                                                                     nomolog (Fragment).
                                                                                                                                                                                                                                                                                                                 676 NENTLEAAAGALQ
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8; Conserv
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Pred. No.
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ARM 7.
ARM 7.
ARM 8.
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(IN SHORT ISOFORM)
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Sciurognathi; Muridae
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Search completed: July 3, 2003, 14:05:52 Job time: 7.5 secs
                                                                                                                              Query Match 49.4%;
Best Local Similarity 61.5%;
Matches 8; Conservative
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HSSP; P3522; 1G3J.

MGD; MGI:109620; Arvcf.
InterPro; IPR000225; Armadillo.

Pfam; PF00514; Armadillo_seg; 6.

SMART; SM00185; ARM, 4.

PROSITE; PS50176; ARM_REPEAT; 3.

Cell adhesion; Cytoskeleton; Structural protein; Repeat; Coiled coil.

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REPEAT
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                                                                                 2 NFAGIEAAASAIQ 14
                                                                                                                                                                                              570
634
675
721
770
969 AA;
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ARM 3.
ARM 4.
ARM 5.
ARM 5.
ARM 6.
ARM 7.
ARM 7.
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ARM 9.
ARM 10.
                                                                                                                              Score 38; DB 1; Length 969; Pred. No. 1.2e+02; Mismatches 3; Indels
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OM protein - protein search, using sw model
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No.
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Listing first 45 summaries
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Perfect score:
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seq length:
 length: 2000000000
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Match
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BLOSUM62
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77
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ALIGNMENTS

RESULT 2 G86844 hypothetical protein glnP [imported] - Lactococcus lactis subsp. lactis (strain IL140 c; Species: Lactococcus lactis subsp. lactis C; Date: 23-Mar-2001 #sequence_revision 23-Mar-2001 #text_change 03-Aug-2001 C; Accession: G86844 R; Bolotin, A.; Wincker, P.; Mauger, S.; Jaillon, O.; Malarme, K.; Weissenbach, J.; Eh Genome Res. 11, 731-753, 2001 A; Title: The complete genome sequence of the lactic acid bacterium Lactococcus lactis: A; Reference number: A86625; MUID:21235186; PMID:11337471 A; Accession: G86844 A; Status: preliminary A; Molecule type: DNA A; Residues: 1-714 <sto></sto>	Qy 1 WNFAGIEAAASAIQG 15 Db 6 WNFAGIEAAASAIQG 20	Query Match 100.0%; Score 77; DB.2; Length 95; Best Local Similarity 100.0%; Pred. No. 3.6e-06; Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	A;Accession: S49174 A;Accession: S49174 A;Kolecule type: DNA A;Residues: 1-13,'R',15-22,'S',24-95 <soe> A;Cross-references: EMBL:X79562; NID:g531708 C;Genetics: A;Gene: esat6</soe>	A; Residues: 1-95 <col/> A; Residues: 1-95 <col/> A; Cross-references: GB.AL022120; GB:AL123456; NID:g3261558; PIDN:CAA17967.1; PID:e126 A; Experimental source: strain H37Rv R; Soerensen, A.L.; Nagai, S.; Houen, G.; Andersen, P.; Andersen, A.B. submitted to the EMBL Data Library, June 1994 A; Reference number: S49174	be biology of Mycobacterium tuberculosis from the cost with the cost wit	RESULT 1 A70803 A70803 A70803 C;Species: Mycobacterium tuberculosis C;Species: Mycobacterium tuberculosis C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 22-Oct-1999 C;Accession: A70803; S49174 C;Accession: A70803; S49174 R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Gordon; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Holroyd, Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Nature 393, 537-544, 1998 B.Butters, Garnes P. Suleton, J.F. Tavior, K.; Whitehand, S.; Barrell, R.G.

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C; Geneti
A; Gene:
                                                                                                                                                                                                                                                                                                                                                                                  C;Accession: S71360; S71358
R;Ardourel, M.; Lortet, G.; Maillet, F.; Roche, P.; Truchet, submitted to the EMBL Data Library, May 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Accession: T50707
R;Choudhary, M.; Kaplan, S.
Nucleic Acids Res. 28, 862-867, 2000
A;Title: DNA sequence analysis of the photosynthesis region A;Reference number: Z25222; MUID:20115911; PMID:10648776
A;Accession: T50707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: GB:AE005176; PID:g12724781; PIDN:AAK05857.1; GSPDB:GN00146 A;Experimental source: strain IL1403 C;Genetics: A;Gene: glnP
                                                                                                                                                                                        A; Reference number: S71357; MUID:96111489; A; Accession: S71358
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C;Species: Rhodobacter sphaeroides
C;Date: 21-Jul-2000 #sequence_revision 21-Jul-2000 #text_change
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C;Species: Bhodou
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                                                                                                      A; Experimental source: strain
                                                                                                                      A; Cross-references: EMBL: U26430
                                                                                                                                        A; Molecule type:
A; Residues: 304-
                                                                                                                                                                        A; Status: nucleic acid sequence not shown
                                                                                                                                                                                                                                             A;Title:
                                                                                                                                                                                                                                                          A; Experimental source: strain RCR2011
R; Ardourel, M.; Lortet, G.; Maillet, F.; Roche,
Mol. Microbiol. 17, 687-699, 1995
                                                                                                                                                                                                                                                                                                 A;Residues: 1-476 <ARD>
A;Cross-references: EMBL:U26430; NID:g1326068; PIDN:AAC44091.1;
                                                                                                                                                                                                                                                                                                                                                             A; Reference number: S71360
A; Accession: S71360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                noeA protein - Rhizobium meliloti
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                                                                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                             ;Species: Rhizobium meliloti
;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997
;Accession: S71360; S71358
   Query Match
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                                     nodulation
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                                                                                                                                                                                                                                          meliloti,
                                                   meliloti noeA protein
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75.0%;
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Length 476;
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                                                                                                                   A; Experimental source:
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                                   Query Match
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Local

Similarity 9; Conserv

55.2%;

Score 42.5;

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Length 141; Indels

7;

Gaps

1;

Pred.

No.

Mismatches

Bacillus

subtilis hypothetical

protein 뮵

GB:AE004755; G ce: strain PAO1

GB:AE004091; NID:g9949456;

PIDN: AAG06720.1;

GSPDB:GN

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R;Stover, C.K.; Pham, X.Q.; Erwin, adman, S.; Yuan, Y.; Brody, L.L.; ( ; Lory, S.; Olson, M.V. mature 406, 959-964, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: GB:AE006469; PIDN:AAK65074.1; PID:g14523508; GSPDB:GN001
A;Experimental source: Strain 1021, megaplasmid pSymA
R;Gallbert, F.; Finan, T.M.; Long, S.R.; Puhler, A.; Abola, P.; Ampe, F.; Ba
pela, D.; Chain, P.; Cowie, A.; Davis, R.W.; Dreano, S.; Federspiel, N.A.; F
L.; Hyman, R.W.; Jones, T.
Science 293, 668-672, 2001
A;Authors: Kahn, D. Kahn, M.L.; Kalman, S.; Keating, D.H.; Kiss, E.; Komp,
hebault, P.; Vandenbol, M.; Vorbolter, F.J.; Weidner, S.; Wells, D.H.; Wong,
A;Title: The composite genome of the legume symbiont Sinorhizobium meliloti.
A;Reference number: A96039; MUID:21368234; PMID:11474104
                                                    A; Title: Complete genome sec
A; Reference number: A82950;
A; Accession: H83229
                                                                                                                                                                                                                  conserved hypothetical protein PA3332 [imported] - C;Species: Pseudomonas aeruginosa C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Barnett, M.J.; Fisher, R.F.; Jones, T.; Komp, C.; Abola, A.P.; B.; Kalman, S.; Keating, D.H.; Palm, C.; Peck, M.C.; Surzycki, R.; Proc. Natl. Acad. Sci. U.S.A. 98, 9883-9888, 2001
A;Title: Nucleotide sequence and predicted functions of the entire A;Reference number: A95262; MUID:21396509; PMID:11481432
A;Accession: H93313
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C;Superfamily: Rhizobium
A; Molecule type: DNA
A; Residues: 1-141 <STO>
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                                     A; Status: preliminary
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                                                                                 sequence of Pseudomonas aeruginosa 50; MUID:20437337; PMID:10984043
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K.R.; Kas,
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D.H.; Wong,
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N.A.; Fisher, R.
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Larbig,
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Nucleic Acids Res. 28, 2311-2314, 2000
A.Title: Comparison of whole genome sequences of chlamydia pneumoniae J138.
A.Reference number: A86491; MUID:20330349; PMID:10871362
A.Accession: E86554
A.Status: preliminary
A.Status: preliminary
A.Status: preliminary
A.Status: DNA
A.Residues: 1-369 <STO>
A.Cross-references: GB:BA000008; NID:g8978883; PIDN:BAA98719.1; GSPDB:GN00142
A.Experimental source: strain J138
C.;GenetLos:
A.Gene: CPj0513
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                                                                                                                      C; Genetics:
A; Gene: CPn0513; CP0240
C; Superfamily: hypothet
                                                                                                                                                                           N;Alternate names: fe-s oxidoreductase C;Species: Chlamydophila pneumoniae C;Species: Chlamydophila pneumoniae C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 11-May-2000 C;Accession: G72069; F81599
R;Kalman, S.; Mitchell, W.; Marathe, R.; Lammel, C.; Fan, J.; Olinger, L.; Nature Genet. 21, 385-389, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                        A;Title: Comparative genomes of Clamydia pneumoniae and C. trachomatis. A;Reference number: A72000; MUID:99206606; PMID:10192388 A;Accession: G72069
A;Status: preliminary A;Molecule type: DNA A;Residues: 1-369 <ARN>
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R.Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Ber C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; A.; Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, Nature 390, 249-256, 1997

A; Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galiech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M. Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardino, A.; Authors: Lauber, J.; Lazaravic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Mau, M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portete Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanla, A.; Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Se keuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchlya T.; Winters, P.; Wipat, A.; Yamamoto, H.; Yamane, K.; Yasumoto, K.; Yata, K.; Yoshida A;Authors: Yoshikawa, H.; Danchin, A.
A;Title: The complete genome sequence of the Gram-positive bacterium Bacillus subtili A; Reference number: A65580; MUID:98044033; PMID:9384377
                                                                                                                                                                                                                                                                                                                                                                                                              C;Accession: D82342
R;Heidelberg, J.F.; Elsen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, R. chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H.; Dragoi, I.; Sellers L, R.R.; Mekalanos, J.J.; Venter, J.C.; Fraser, C.M.
Nature 406, 477-483, 2000
                                                                                                                                                                                                                                                                                                                             A;Title: DNA Sequence of both chromosomes of the cholera A;Reference number: A82035; MUID:20406833; PMID:10952301 A;Accession: D82342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          probable cadaverine/lysine antiporter CadB VC0280 [imported] - Vibrio cholerae
C;Species: Vibrio cholerae
C;Date: 18-Aug_2000 #sequence_revision 20-Aug-2000 #text_change 02-Feb-2001
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C; Superfamily:
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C; Date: 05-Dec-1997
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A; Cross-references: GB:Z99121;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R;Lawrence, J.G.; Ochman, H.; Hartl, D.L.
J. Gen. Microbiol. 137, 1911-1921, 1991
A;Title: Molecular and evolutionary relationships among A;Reference number: 140701; MUID:92065252; PMID:1955870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    glyceraldehyde-3-phosphate dehydrogenase (phosphorylating) (EC 1.2.1.12) - C;Species: Escherichia blattae C;Date: 04-Sep-1997 #sequence_revision 07-Nov-1997 #text_change 03-Jun-2002 C;Accession: I41220; I41223; I41226
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A;Molecule type: DNA
A;Residues: 1-294 <RES>
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A; Residues: 1-294 <RE2>
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A;Experimental source: strain IL1403
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A; Residues: 1-540 <STO>
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R;Smith, D.R.; Doucette-Stamm, L.A.; Deloughery, C.; Lee, H.; Dubois, J.; Aldredge, R;Smith, D.R.; Doucette-Stamm, L.A.; Deloughery, C.; Lee, H.; Dubois, J.; Aldredge, Qiu, D.; Spadafora, R.; Vicaire, R.; Wang, Y.; Wierzbowski, J.; Gibson, R.; Jiwani, Qiu, D.; Rice, P.; Noelling, J.; Reeve, J.N. ki, S.; Church, G.M.; Daniels, C.J.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.N. J. Bacteriol. 179, 7135-7155, 1997
ki, S.; Church, G.M.; Daniels, C.J.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.; Bacteriol. 179, 7135-7155, 1997

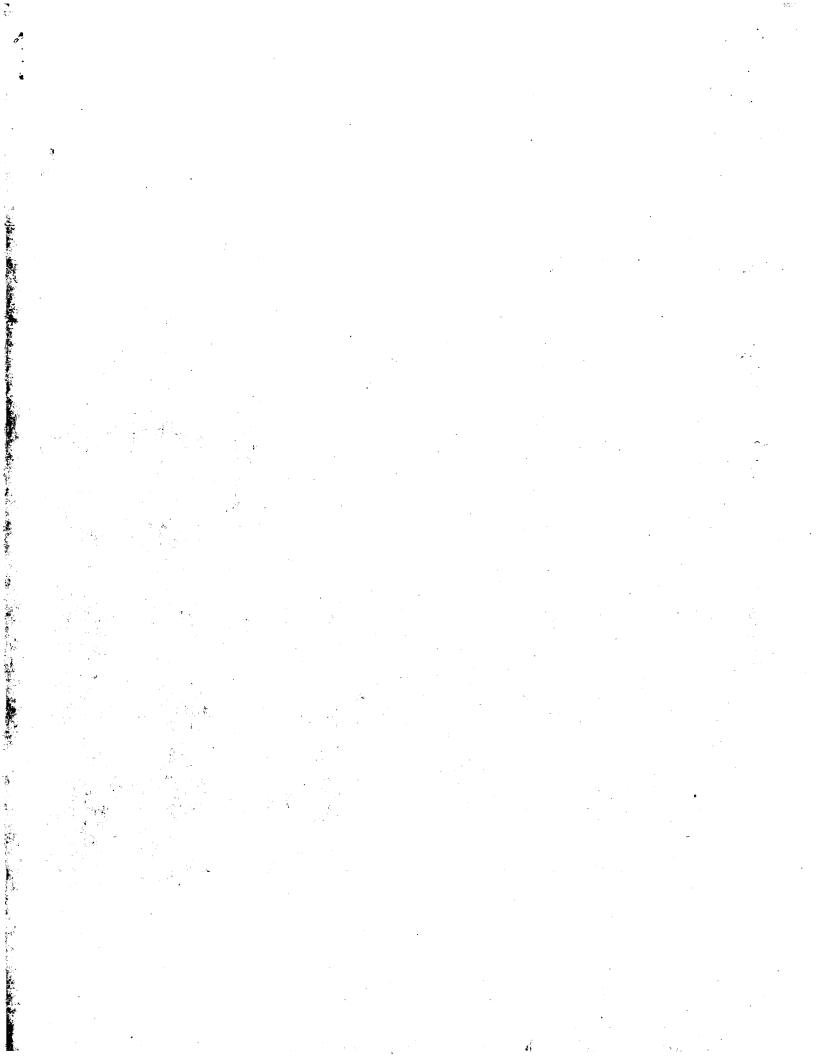
A;Title: Complete genome sequence of Methanobacterium thermoautotrophicum Delta A;Reference number: A69000; MUID:98037514; PMID:9371463

A;Accession: H69020

A;Status: preliminary; nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                      probable Na+/Ca2+,K+-exchanging protein - Methanobacterium thermoautotrophicum (strai
C;Species: Methanobacterium thermoautotrophicum
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 22-Oct-1999
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R;WOOd, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, erage, G.; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, T.; Levy, R.; Li, P.; Karp, P.; Romero, P.; Zhang, S.
Science 294, 2317-2323, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
AD2675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Goodner, B.; Hinkle, G.; Gattung, S.;
A.; Liu, F.; Wollam, C.; Allinger, M.;
Science 294, 2323-2328, 2001
                                                                                                                           A; Gene: Atu0802
A; Map position:
                                                                                                                                                            A; Experimental source: C; Genetics:
                                                                                                                                                                           A;Cross-references: GB:AE008688; PIDN:AAL41818.1; A;Experimental source: strain C58 (Dupont)
                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-323 < KUR>
                                                                                                                                                                                                                                                         A; Reference number: A; Accession: AD2675
                                                                                                                                                                                                                                                                          A; Title: The Genome of the Natural Genetic Engineer A; Reference number: AB2577; PMID:11743193
                                                                                                                                                                                                                                                                                                            A; Authors: Yoo, H.; Tao, ster, E.W.
                                                                                                                                                                                                                                                                                                                                                                                                      conserved hypothetical protein Atu0802 [imported] - Agrobacterium tumefacien C;Species: Agrobacterium tumefaciens C;Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 11-Jan-2002 C;Accession: AD2675
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A; Residues: 1-323 <KUR>
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C;Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 11-Jan-2002
C;Accession: B97457
                                                                                                                                                                                                                                             A;Status:
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Doughty, D.;
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Lappas, C.;
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A:Realduce: 1 330 CMH)
A:Cross-references: GB:AE000085; GB:AE0000666; NID:92622256; PIDN:AAB85644.1; PID:9262226
A:Cross-references: GB:AE0000865; NID:9262226
A:Cross-references: GB



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Result
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Listing first 45 summaries
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Copyright (c) 1993 - 2003 Compugen Ltd.
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(without alignments)
66.625 Million cell updates/sec
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AAY94595
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50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	51.9	51.9	51.9	53.2	54.5	57.1	61.0	70.1	70.1	77.9	80.5	85.7	92.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
253	239	232	228	221	209	162	162	162	140	9	2293	403	81	540	409	15	714	15	15	13	17	20	19	404	404	403	403	196	95	95	95	95	95	51
22	22	21	22	21	21	22	22	22	21	19	21	22	22	23	20	21	23	23	21	22	21	22	18	20	19	20	19	20	23	22	20	20	16	23
AAM23550	AAU21624	AAG36642	AAM42057	AAY91434	AAG36643	AAY72606	AAB93538 .	AAM40271	AAB41828	AAW61077	AAY69197	AAM40540	AAU42989	ABB54282	AAY35136	AAY94599	ABB55108	AA017432	AAY94590	AAE12274	AAY88581	AAE12276	AAW35548	AAY21962	AAW72942 ·	AAY21963	AAW72943	AAY29888	AAM50740	AAB35219	AAY29788	989	114	AAE17580
- 5	Novel human neopla	Arabidopsis thalia	Human polypeptide	ŧ	dopsis tha	Electror	Human protein segu	Human polypeptide	ORFX	acid		Human polypeptide	Propionibacterium	Lactococcus lactis	Chlamydia pneumoni	Mycobacterium tube	occus la	Early secreted ant	acterium	Mycobacterium tube	Antigenic N-termin	0	6 ant	Amino acid sequenc	acter	O			3	Ė		င္သ	D)	Mycobacterium spec

ALIGNMENTS

RRESULT 1
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XX AAY94595
AC AAY9
XX Mycc
XX Tube
XX Tube
XX Mycc
XX Mycc
XX Mycc
XX AY
DD 11-P
PD 11-P
PD 11-P
PD 03-P
XX O4-P
PR 04-P
PR 04-P
XX WPI;
XX WPI;
XX WPI;
XX WPI;
XX WPI;
XX Mycc
PT Mycc
PT Mycc
PT Mycc
PT Mycc
PT Mycd
PT My 04-NOV-1998; 04-NOV-1998; 03-NOV-1999; W0200026248-A2. Mycobacterium tuberculosis. Tuberculosis; infection diagnosis; ESAT-6 Mycobacterium tuberculosis ESAT-6 peptide ES6 28-NOV-2000 AAY94595; AAY94595 standard; peptide; Lalvani A, 11-MAY-2000. (ISIS-) ISIS INNOVATION LTD Pathan AA; (first entry) 98GB-0024213. 98US-0107004. 99WO-GB03635 15

Novel method of diagnosing infection, or exposure of a host, to a mycobacterium comprising contacting ${\tt T}$ cells from the host with ESAT-6 derived peptides -

2000-365579/31.

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RESULT 2
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Best Local 9
                    The present invention relates to a method of inducing a CD4+ T-cell response against a target antigen, by administering two different compositions comprising a source of CD4+ T-cell epitope(s) of the target antigen, where the second composition further includes an epitope which is same as the epitope of the first composition, where the source of the epitopes for the compositions is a non-replicating or replication impaired recombinant poxyirus vector. The methods are useful for inducing CD4+ T-cell immune responses against diseases such as tuberculosis, human immunodeficiency virus (HIV) (persistent viral infection), malaria, Helicobacter pylori, influenza, hepatitis (chronic hepatitis B and C), cytomegalovirus (CMV), viral infection, herpes virus-induced disease, leprosy and diseases caused by non-malarial protozoan parasite such as
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                                                                                                                                                                                                                                                                                                                                                                                                         Example 1;
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15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WNFAGIEAAASAIQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WNFAGIEAAASAIQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Page 3;
                                                                                                                                                                                                                                                                                                                                                                                                   Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   McShane H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antlinflammatory; antileprotic; cytostatic; epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antigenic target 6 T cell epitope #2.
                                                                                                                                                                                                                                                                                                                                                                                                         21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infection; leprosy; protozoan parasite; cancer;
anti-HIV; protozoacide; antibacterial; virucide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gilbert S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15
                                                                                                                                                                                                                                                                                                                                                                                                      English
present
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Pred. No. 1.4e-06;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Reece W,
protozoan parasite such is an epitope from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Schneider J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         influenza;
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RESULT 4
AAW32466
ID AAW3
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AAW32466

standard;

Protein; 51

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RESULT 3
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ID AAE1
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                                            Query Match
Best Local S
Matches 15
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                          The present invention relates to Mycobacterium tuberculosis (Mtb) vaccine candidate peptides. The invention also relates to a method for identifying Mtb vaccine candidate peptides as well as vaccines comprising these candidate peptides. Vaccines of the invention and Mtb vaccine candidate peptides are useful for inducing an anti-Mycobacterium tuberculosis (anti-Mtb) immune response by raising anti-Mtb antibody in a mammalian subject preferably human. They are used for immunising a mammalian subject, preferably humans, against infection caused by Mycobacterium tuberculosis. The present sequence is a Mtb vaccine candidate peptide.
                                                                                       Sequence
                                                                                                                                                                                                                                     Disclosure;
                                                                                                                                                                                                                                                          New vaccine for immunizing a mammalian subject, preferably humans, against infection caused by Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mycobacterium tuberculosis useful in
                                                                                                                                                                                                                                                                                                                                                                                                                                WO200170774-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mycobacterium
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                                                                                                                                                                                                                                                                                                                                         (UYBR-) UNIV BROWN RES FOUND
                                                                                                                                                                                                                                                                                                                                                               20-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                    20-MAR-2001; 2001WO-US08906
                                                                                                                                                                                                                                                                                             2001-616401/71
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N
                      1 WNFAGIEAAASAIQG
                                           15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15; Conser
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WNFAGIEAAASAIQG
                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            anti-Mtb
                                                                                                                                                                                                                                      Fig 4; 42pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                               2000US-190834P
                                                                                         AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tuberculosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immune
                                                     100.0%;
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16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Mtb) peptide #60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mtb
                                            0;
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Pred. No.
                                            Score 77; DB 22;
Pred. No. 1.9e-06;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptide; antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.4e-06;
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                                                                Length 20
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                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      vaccine
                                            0;
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RESULT 5
AAW32339
ID AAW3
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Best Local S
Matches 15
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01-SEP-1995;
22-SEP-1995;
22-MAR-1996;
05-JUN-1996;
                                                                                                                                                          13-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modifications). The present sequence represents a M.tuberculosis antigen, ESAT-6. The immunogenic protein, and fusion proteins containing one or more of the proteins proteins containing one or more of the proteins plus ESAT-6, are useful in vaccines, preferably when formulated with a non-specific adjuvant, to induce an immune response against
                      Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A new immunogenic polypeptide has been developed comprising an immunogenic part of a soluble Mycobacterium tuberculosis antigen its variant differing only in conservative substitutions and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1997-192903/17.
N-PSDB; AAT91529.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Antigen; immunogen; vaccine; skin testing; M.tuberculosis
                                                                               Antigen;
                                                                                                                     Mycobacterium
                                                                                                                                                                                                AAW32339
                                                                                                                                                                                                                                     AAW32339 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 135; 168pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New immunogenic polypeptide(s) from useful in vaccines for prevention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Campos-neto A, Dillon E
Twardzik DR, Vedvick TH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9709428-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-JAN-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 M.tuberculosis (for treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CORI-) CORIXA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-AUG-1996;
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                                                        gen; immunogen; vaccine;
testing; M.tuberculosis
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                                                                                                                                                                                                                                                                                                                                                                                                                 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                           WNFAGIEAAASAIQG
                                                                                                                                                                                                                                                                                                                                    WNFAGIEAAASAIQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             51 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                 tuberculosis antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tuberculosis antigen ESAT-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95US-0523436.
95US-0533634.
96US-0620874.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96US-0659683
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                                                                                                                                                                                                                                     Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  vaccine; tuberculosis; non
                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Houghton
                                                                             tuberculosis; non
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English.
                                                                                                                                                                                                                                                                                                                                                                                                                              Score 77;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or prevention).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     from N
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                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                 ESAT-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterium r treatment of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       æ
                                                                                                                                                                                                                                                                                                                                                                                                             j.2e-06;
es 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 18;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SG,
                                                                           specific adjuvant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              specific adjuvant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tuberculosis -
                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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(CORI-) CORIXA CORP
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RESULT 6
AAW81701
ID AAW8
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01-SEP-1995;
22-SEP-1995;
22-MAR-1996;
05-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence of the ESAT-6 M.tuberculosis antigen. The immunogenic polypeptide can be used to diagnose M.tuberculosis infection by formin complexes with specific antibodies in the sample. Fragments of DNA encoding the immunogenic polypeptide can be used as diagnostic primers or probes and agents that bind to the antigen, especially monoclonal antibodies or equivalent polyclonal antibodies, are also used for
                                                                                                                                        Tuberculosis; immunogenic; soluble; antigen; protective immunity; vaccine; pharmaceutical; infection; diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A new immunogenic polypeptide has been developed comprising an immunogenic part of a soluble Mycobacterium tuberculosis antigen (or its variant differing only in conservative substitutions and/or modifications). The present sequence represents a specifically claimed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New immunogenic polypeptide(s) from soluble M. tuberculosis antigens - useful for diagnosis of M. tuberculosis infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Campos-neto A, Dillo
Twardzik DR, Vedvick
13-MAR-1997;
11-OCT-1996;
                                       07-0CT-1997;
                                                                                                                 Mycobacterium
                                                                                                                                                                               M. tuberculosis immunogenic polypeptide ESAT-6.
                                                                                                                                                                                                          27-JAN-1999
                                                                                                                                                                                                                                   AAW81701;
                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                        diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 43; Page 147; 190pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI;
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                                                               23-APR-1998
                                                                                        WO9816646-A2
                                                                                                                                                                                                                                                           AAW81701 standard;
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                                                                                                                                                                                                                                                                                                                                                                                           Local
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DB; AAT91463.
                                                                                                                                                                                                                                                                                                                            σ
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15; Conserv
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                                                                                                                                                                                                                                                                                                                            WNFAGIEAAASAIQG
                                                                                                                                                                                                                                                                                                                                                                                                                                51
                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                 A,
                                                                                                                 tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96US-0680573.
95US-0523435.
95US-0532136.
96US-0620280.
96US-0658800.
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97US-0818112
96US-0730510
                                       97WO-US18293
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dillon
                                                                                                                                                                                                                                                           Protein;
                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                           Pred.
                                                                                                                                                                                                                                                                                                                                                                                                     Score 77;
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                                                                                                                                                                                                                                                                                                                                                                             5.2e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                      DB 18;
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                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                              Indels
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                                                                                                                                                                                                                                                                                                                                                                                                        51;
                                                                                                                                                                                                                                                                                                                                                                             0;
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                                                                                                                                                      TB;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
 This polypeptide comprises an antigenic portion of Mycobacterium tuberculosis antigen ESAT-16. The invention relates to compositions and methods for diagnosing tuberculosis. It provide polypeptides (see AAW64291-W64379) comprising an antigenic portion of a soluble M. tuberculosis antigen, or an immunogenic portion of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This sequence represents an immunogenic portion of a soluble a Mycobacterium tuberculosis (MT) antigen which can be used in a for inducing protective immunity against tuberculosis (TB). The sequence can be formulated into vaccines and/or pharmaceutical compositions for immunising against M. tuberculosis infection be used for the diagnosis of tuberculosis.
                                                                                        New isolated Mycobacterium tuberculosis |
to develop products for the detection of
and diagnosis of tuberculosis
                                                                                                                                                                   Campos-Neto A, E
Reed SG, Skeiky
                                                                                                                                                                                                                           13-MAR-1997;
11-OCT-1996;
                                                                  Disclosure; Page 130; 250pp; English.
                                                                                                                                                                                                                                                          07-OCT-1997;
                                                                                                                                                                                                                                                                                                      WO9816645-A2
                                                                                                                                                                                                                                                                                                                                                 Tuberculosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunogenic Mycobacterium tuberculosis polypeptide(s) and DNA - us to develop products for the detection of M. tuberculosis infection and for diagnosis, treatment and prevention of tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Campos-Neto A, I
Reed SG, Skeiky
                                                                                                                                                  WPI;
                                                                                                                                                                                                     (CORI-) CORIXA
                                                                                                                                                                                                                                                                                23-APR-1998
                                                                                                                                                                                                                                                                                                                            Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                      Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                             09-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                    AAW64334;
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW64334 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
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                                                                                                                                    1998-251292/22.
DB; AAV44393.
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DB; AAV64501.
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15; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Page 126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                                                                                                                                                                                                                      tuberculosis antigen
                                                                                                                                                                                                                                                                                                                                                infection; diagnosis; antigen;
                                                                                                                                                                                                      CORP.
                                                                                                                                                                                                                           97US-0818111.
96US-0729622.
                                                                                                                                                                                                                                                          97WO-US18214
                                                                                                                                                                    Dillon
y YAW,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Twardzik DR, \
                                                                                                                                                                    DC, Houghton
Twardzik DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                       ESAT-6
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Vedvick TS;
                                                                                                                                                                    R, Lodes N
Vedvick TS;
                                                                                                  polypeptides and f M. tuberculosis
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5.2e-06;
es 0;
                                                                                                                                                                                                                                                                                                                                                 ESAT-6
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It provides genic portion ic portion of
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                                                                                                  infection
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RESULT 8
AAY39131
ID AAY3
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Best Local S
Matches 15
                                          part of a Mycobacterium tuberculosis antigen (Ag). Also described are vaccines and fusion protein containing M. tuberculosis Ag's.

M. tuberculosis Ag's, DNAs encoding them, derived fusion proteins and other polypeptides fragments, can be used in pharmaceutical compositions or vaccines to generate a protective or therapeutic immune response to M. tuberculosis and as reagents in skin tests for diagnosis of tuberculosis. Ag can induce proliferation of, or cytokine secretion by, T. B or natural killer cells and/or macrophages in tuberculosis-immune subjects. AAZ19249 to AAZ19460 and AAX39083 to AAX39225 are used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               an M. tuberculosis antigen, as well as fusion proteins between these polypeptides and Known antigens such as ESAT-6. Also clare methods and diagnostic kits for detecting M. tuberculosis infection in a patient using these polypeptides, antibodies, oligonucleotide probes and primers.
                                                                                                                                                                                                                                                                                                                                                                                    skin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mycobacterium tuberculosis; immunotherapy; diagnosis; in immune response; skin test.
                                                                                                                                                                                                                                                                                                                                     Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Campos-Neto
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                                                                                                                                                                                                                                                                                      The present invention describes polypeptides comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-MAY-1998;
18-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-FEB-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             M. tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lodes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (CORI-) CORIXA
                                                                                                                                                                                                                                                                                                                                                                                                        antigens
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                                                                                                                                                                                                                                                                                                                                                                                    tests
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15; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WNFAGIEAAASAIQG
                                                                                                                                                                                                                                                                                                                                                                               and protective or therapeutic vaccines or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Reed
                                                                                                                                                                                                                                                                                                                                     Page 120;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
llarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tuberculosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dillon DC, s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0072967
98US-0025197
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ESAT-6amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                299pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunisation; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hendrickson RC, H
YAW, Twardzik DR,
                                                                                                                                                                                                                                                                                                                                     English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tuberculosis; antigen; immunogen;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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No.
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5.2e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Houghton
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infection;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                          'n
                                                                                                                                                                                                                                                                                                                                                                                    in diagnostic compositions
                                                                                                                                                                                                                                                                                        an immunogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TS
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Query Match Best Local S Matches 15

Similarity

100.0%;

Score 77; DB 20; Pred. No. 5.2e-06;

Length 51;

Mismatches

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Gaps

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Sequence

51

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RESULT 9
AAY38988
ID AAY38988
ID AAY38988
ID AAY3
XX AAT1
XX A
ARUGULT 10
AAU01897
ID AAU01
XX AAU01
AC AAU01
XX DT 29-AL
XX DE Mycol
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antigen; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This invention describes novel recombinant antigens and their encoding nucleic acids derived from Mycobacterium tuberculosis. The novel polypeptides are useful for detecting M. tuberculosis infection in a biological sample by detecting antibodies which bind with the polypeptides, and are useful as vaccines for immunizing against M. tuberculosis infection. The new detection methods are needed as current vaccination strategies do not provide 100% immunity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI;
                       ESAT-6; antigen; vaccine; tuberculosis; AIDS; acquired immunodeficiency disease.
                                                                                             Mycobacterium
                                                                                                                                          29-AUG-2001
                                                                                                                                                                                     AAU01897;
                                                                                                                                                                                                                                  AAU01897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New polypeptide comprising antigenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-MAY-1998;
18-FEB-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                M. tuberculosis recombinant antigen protein ESAT-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-NOV-1999
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DB; AAZ19091.
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                                                                                                                                                                                                                                                                                                                                                                                                                                           l Similarity
15; Conser
                                                                                                                                                                                                                                                                                                                                                                             WNFAGIEAAASAIQG
                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WNFAGIEAAASAIQG
                                                                                                                                                                                                                                                                                                                                                WNFAGIEAAASAIQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  diagnosis; immunity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WNFAGIEAAASAIQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 165; 323pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   51 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Reed SG, Skeiky
                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
llarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                          (first
                                                                                          tuberculosis partial antigen ESAT-6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tuberculosis
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98US-0024753.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US03265
                                                                                                                                                                                                                                Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     detection; infection; antibody;
                                                                                                                                        entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           51
                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 77; DB Pred. No. 5.2); Mismatches
                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              portions of M.
                                                                                                                                                                                                                                                                                                                                                                                                                               DB 2u,
5.2e-06;
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R, Vedvick TS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immunisation;
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RESULT 11
AAE17580
ID AAE17
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Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                           The sequence represents Mycobacterium tuberculosis ESAT-6 antigen. Compositions comprising at least 2 heterologous antigens, as a fusion protein, and vectors expressing the fusion proteins are used as vaccines to prophylactically immunise mammals (especially humans) against infection by Mycobacteria. The compositions contain at least 2 heterologous antigens that increase the serological sensitivity of individuals infected with tuberculosis, a disease frequently affecting patients with acquired immunodeficiency disease, AIDS.
       WPI; 2002-147798/19
                           Skeiky Y,
                                                                    20-JUN-2000;
01-FEB-2001;
                                                                                                                                                                                                                                                                         AAE17580 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 164; 168pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Vaccinating against Mycobacteria infections in mammals using proteins comprising combinations of heterologous antigens \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-290576/30
N-PSDB; AAS03787.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Skeiky Y, Reed S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-OCT-1999;
07-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-APR-2001.
                                                                                                 20-JUN-2001; 2001WO-US19959
                                                                                                                     27-DEC-2001.
                                                                                                                                         WO200198460-A2
                                                                                                                                                           Mycobacterium
                                                                                                                                                                               Fusion protein;
tuberculosis; in
                                                                                                                                                                                                              Mycobacterium
                                                                                                                                                                                                                                  22-APR-2002
                                                                                                                                                                                                                                                     AAE17580;
                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mycobacterium tuberculosis.
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                                               (CORI-)
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15; Conserv
                                               CORIXA CORP
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                                                                                                                                                                                                                                                                                                                                       WNFAGIEAAASAIQG
                           Reed S,
                                                                                                                                                                                                                                                                                                                                                                                                           51 AA;
                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                  2000US-0597796
2001US-265737P
                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                            sp.
                                                                                                                                                                               n; antigen;
infection;
                                                                                                                                                                                                             species ESAT-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0158338
99US-0158425
                                                                                                                                                                                                                                                                         Protein;
                            Alderson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Houghton
                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                               serological sensitivity;
vaccine; ESAT-6 protein.
                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                              15
                                                                                                                                                                                                                                                                         51
                                                                                                                                                                                                                                                                                                                                                                    0;
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                                                                                                                                                                                                             protein
                                                                                                                                                                                                                                                                                                                                                                             Score 77;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                         AA.
                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                       DВ
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s 0;
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                                                                                                                                                                                                                                                                                                                                                                                       51;
                                                                                                                                                                                         response;
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0;

N-PSDB; AAD28351.

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RESULT 12
AAW11494
ID AAW11
XX AAW11
XX AAW11
XX 27-MA
DT 27-MA
DE ESAT6
XX ESAT6
XX HYB76
KW HYB76
KW M. Bf
OS Mycob
XX WO950
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention relates to fusion proteins containing at least CC two Mycobacterium species antigens, nucleotides encoding them and CC compositions comprising such fusion proteins. The present invention CC particularly relates to nucleic acids encoding fusion proteins that cc include two or more individual M. tuberculosis antigens which increase the serological sensitivity of sera from individuals infected with CC therculosis and methods for their use in diagnosis, prevention and CC treatment of tuberculosis infection. Sequences of the invention are cc useful for eliciting an immune response in a mammal, e.g., human, it is consisted with BCG. They are useful in the diagnosis, treatment and CC prevention of Mycobacterium infection. The fusion proteins and the polynucleotides are useful as diagnostic tools in patients infected with Mycobacterium, in vitro and in vivo assays for detecting humoral CC antibodies or cell-mediated inmunity against M. tuberculosis, for the CL immunogens to generate or elicit a protective immune response in a CC immunogens to generate or elicit a protective immune response in a CC immunogens to generate or elicit a protective immune response in a CC immunogens of the invention are also used as vaccines. MTB32A CC for intradermal syln test "The present secures is Mycobacterium against in the colors."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local (
Vaccine for tuberculosis induces inter
T-lymphocytes - comprises an antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ESAT6; Mycobacterium tuberculosis; 6kDa antigen; tuberculosis complex; HYB76-8 reactive antigen; interferon-gamma; memory T-lymphocyte; vaccine M. africanum; M. bovis; delayed-type hypersensitivity reaction; therapy
                                                                                                                                                                                                                                                                                       02-JUL-1993;
                                                                                                                                                                                                                                                                                                                                            01-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                         12-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ESAT6.
                                                                                                                                                                          Andersen
                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9501441-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mycobacterium species,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Composition
                                                                                                                                                                                                                               (STAT-) STATENS
                                                                                     1995-061005/08
DB; AAT51422.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . Similarity
15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein.
                                                                                                                                                                       AB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WNFAGIEAAASAIQG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ž
                                                                                                                                                                       Andersen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tuberculosis
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                                                                                                                                                                                                                                                                                                                                              94WO-DK00273
                                                                                                                                                                                                                               SERUMSINSTITUT
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Pred. No.
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                          interferon-gamma release from
                                                                                                                                                                    ~
                                                                                                                                                                       Sorensen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 23;
5.2e-06;
thes 0;
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released

from mycobacteria,

and

against tuberculosis

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RESULT 13
AAY29890
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
       The present invention describes a bioreactive polypeptide (or immunologically equivalent analogue) produced in lactic acid bacter which reacts with lymphoid cells primed with Mycobacterium tubercul complex mycobacteria (M. tuberculosis, M. africanum or M. bovis). Topolypeptide and ESAT-6 polypeptides are useful in compositions for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 is released from metabolising bacteria, and can be isolated from short term filtrates grown as shaken cultures for 7 days. ESAT6 also induces a release of interferon gamma from reactivated memory T-lymphocytes. This protein sequence is included in the vaccine of the invention. The vaccine is for immunising an animal (including humans) against tuberculosis caused by a Mycobacteria belonging to the tuberculosis complex. The Mycobacteria of the tuberculosis complex are, M. africanum, and M. bovis. The vaccine can evoke a protective immune response against tuberculosis or a delayed-type hypersensitivity reaction. The protein can also be included in a composition for diagnosing tuberculosis. The composition is injected
                                                                                   Disclosure;
                                                                                                          New mycobacterial polypeptide in tuberculosis diagnosis and
                                                                                                                                                WPI; 1999-551043/46
N-PSDB; AAZ21132.
                                                                                                                                                                                                                                       06-MAR-1998;
06-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                    Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterial; lactic acid bacterium; diagnosis; skin delayed type hypersensitivity; DTH; ESAT-6 homodimer;
                                                                                                                                                                                                                                                                                                                                                                                                                            Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY29890 standard;
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                                                                                                                                                                                       Jensen
                                                                                                                                                                                                                                                                            05-MAR-1999;
                                                                                                                                                                                                                                                                                                     10-SEP-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY29890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     for immunisation
                                                                                                                                                                                                                                                                                                                                                                           interferon-gamma
                                                                                                                                                                                                              (STAT-) STATENS SERUM INST
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
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|||||||||||||||
WNFAGIEAAASAIQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95
                                                                                   Page 75-76;
                                                                                                                                                                                       Folkersen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΑĄ;
                                                                                                                                                                                                                                                                                                                                                                                                                           tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       represents the Mycobacterium tuberculosis the 6kDa antigen, or the HYB76-8 reactive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61-63;
                                                                                                                                                                                                                                                                                                                                                     tuberculosis
                                                                                                                                                                                                                                       98DK-0000306
98US-0077105
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vaccines
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Pred. No.
                                                                                 English
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1e-05;
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                                             polypeptide (or
in lactic acid bacteria
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                                                                                                                       acid bacteria,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                       test; vaccine;
tuberculosis;
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RESULT 14
AAY29788
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CC M. tuberculosis complex mycobacteria. The ESAT-6 polypeptide can be used CC to diagnose ongoing/previous sensitisation with these bacteria by CC detecting cytokine release when contacting blood samples with the CC polypeptide. The bioreactive polypeptide may be used in diagnostic CC M. tuberculosis complex, e.g. M. avium which infects poultry and CC compositions and vaccines for mycobacteria other than of the CC mot react with lymphoid cells previously primed with M. tuberculosis CC complex mycobacteria, and so do not give rise to a diagnostic reaction CC in individuals infected with these bacteria. The polypeptides may also CC complex from lymphocytes. The polypeptide has similar or higher CC bioreactivity as currently used tuberculin reagent in the standard CC delayed type hypersensitivity (DTH) skin test for tuberculosis, but may GC have greater specificity, being better able to discriminate between CC The present sequence represents M. tuberculosis ESAT-6 used in the cc exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
The present invention describes a purified or non-naturally occurring polypeptide (I) released from a metabolising mycobacteria comprising an ESAT6, also called the 6 kDa antigen. The present sequence represents Mycobacterium tuberculosis ESAT-6 protein. Also described is a purified or non-naturally occurring polypeptide (II) with the ability to elicit a delayed type hypersensitivity reaction which comprises a T cell
                                                                                                                      Polypeptide secreted against tuberculosis
                                                                                                                                                                                                                                                                      05-JUN-1995;
20-SEP-1993;
                                                                                                                                                                                                                                                                                                               05-JUN-1995;
                                                                                               Claim
                                                                                                                                                                N-PSDB;
                                                                                                                                                                                                      Andersen
                                                                                                                                                                                                                                                                                                                                         21-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                            Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                   Mycobacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-NOV-1999
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                                                                                                                                                                                                                                 (STAT-)
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                                                                                            Fig 10C;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                       Andersen
                                                                                                                                                                                                                                                                                                                                                                                                                      response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             tuberculosis ESAT-6 protein.
                                                                                                                                                                                                                                                        95US-0465640.
93US-0123182.
94WO-DK00273.
                                                                                                                                                                                                                                                                                                                                                                                                                                 ESAT-6; 6 kDa antigen; tuberculosis; infection;
                                                                                                                                                                                                                                                                                                               95US-0465640
                                                                                                                                                                                                                                 SERUMINSTITUT
                                                                                          39pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein;
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                                                                                             English
                                                                                                                                    Mycobacterium
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Pred. No.
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RESULT 15
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and M. africanum. The composition can be used to detect microbial antibodies or components of mycobacteria in samples or in animals through the use of immunoassays. (II) can be used as a vaccine for immunising an animal, including humans against tuberculosis caused by mycobacteria of the tuberculosis complex. (II) induce a release of IFN-gamma from reactivated T-lymphocytes evoking a protective immune response. Yaccine containing (II) has the same protective potency as
                                    Rv2654c, Rv3020c, Rv3444c, Rv3445c, Rv3890c, Rv3891c, Rv3904c Rv3905c. These can be used to produce vaccines against, and ir diagnosis of, tuberculosis (TB) infection. The present sequence
                                                                         The present invention provides the protein and coding sequences fo members of the esat-6 gene family from Mycobacterium tuberculosis proteins include Rv0287, Rv1036c, Rv1037c, Rv2346c, Rv2348c, Rv265
                                                                                                                                                                                                                                                                                                                                                                                                                    Tuberculosis; TB; vaccine; Rv1037c; Rv2346c; Rv2348c; Rv3445c; Rv3890c; Rv3891c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          epitope of (I). (II) can be used with a carrier or vehicle in a composition for diagnosing tuberculosis caused by mycobacteria to the tuberculosis complex, i.e. Mycobacterium tuberculosis, I
Sequence
                                                                                       The present invention members of the esat-6
                                                                                                                               Example 2; Page 65; 80pp; English.
                                                                                                                                                       New polypeptide encoded immunizing against and c
                                                                                                                                                                                                                        Andersen P,
                                                                                                                                                                                                                                                                          13-JUL-1999;
15-JUL-1999;
                                                                                                                                                                                                                                                                                                                 13-JUL-2000; 2000WO-DK00398
                                                                                                                                                                                                                                                                                                                                                                     WO200104151-A2
                                                                                                                                                                                                                                                                                                                                                                                             Mycobacterium
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15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BCG vaccine against tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WNFAGIEAAASAIQG
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                                                                                                                                                                                                                                                                                                                                                                                               tuberculosis.
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99US-0144011
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                         invention
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                                                                                                                                                       d by a member of the esat-6-gene family
  diagnosis of tuberculosis -
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Query Match Best Local

Similarity 15; Conserv

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Score 77; Pred. No.

1e-05;

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Result
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Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
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Listing first 45 summaries
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/cgn2_6/ptodata/1/pubpaa/FCTUS08_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*
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US-09-805-427A-4
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                                                      Sequence 1, Appli
Sequence 4, Appli
Sequence 3, Appli
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Sequence 60, Appl
Sequence 60, Appl
Sequence 59, Appl
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Sequence 61, Appl
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Sequence 4782, Ap
Sequence 4782, Ap
Sequence 4780, A
Sequence 4780, A
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Sequence 4, Appli
Sequence 38, Appl
Sequence 1231, A
Sequence 6035, Ap
Sequence 4, Appli
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US-09-805-427A-1
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US-10-143-114-176	US-10-142-431-176	US-10-140-474-176	US-10-137-865-176	US-10-176-921-176	US-10-176-918-176	US-10-175-746-176	US-10-140-470-176	US-10-123-904-176	US-10-121-049-176	US-10-028-072-176	US-10-295-403-170	us-09-925,-301-1367	US-09-894,-018-101	US-10-038-010-22	US-09-920-021A-3	US-09-961-403-7	US-09-815-242-11148	US-09-833-745-54	US-09-833-745-35	US-09-904-615-155	US-09-739-254-155	US-10-054-988-155	US-10-156-761-10111	US-10-156-761-12653	US-10-060-218A-6
Sequence 176, App	176,	Sequence 176, App	•	176,	•	-	•	Sequence 176, App	Sequence 176, App	•	Sequence 170, App	Sequence 1367, Ap		Sequence 22, Appl	Sequence 3, Appli	Sequence 7, Appli	Sequence 11148, A	Sequence 54, Appl	35,	155,	Sequence 155, App	Sequence 155, App	Sequence 10111, A	126	Sequence 6, Appli

ALIGNMENTS

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Sequence 4, Application US/09805427A
Patent No. US20020176867A1
GENERAL INFORMATION:
APPLICANT: Statens Serum Institut
TITLE OF INVENTION: Hybrids of M. tuberculosis Antigens
FILE REFERENCE: 670001-2002.5
CURRENT APPLICATION UNMBER: US/09/805,427A
CURRENT FILING DATE: 2001-03-13
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PatentIn version 3.0
SEQ ID NO 4
LENGTH: 403
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Patent No. US20020176867A1
GENERAL INFORMATION:
APPLICANT: Statens Serum Institut
TITLE OF INVENTION: Hybrids of M. tuberculosis Antigens
FILE REFERENCE: 670001-2002.5
CURRENT APPLICATION UNMBER: US/19/805,427A
CURRENT FILING DATE: 2001-03-13
NUMBER OF SEQ ID NOS: 12
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TYPE: PRT
ORGANISM: Mycobacterium tuberculosis
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US-09-791-171-173
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SEQ ID NO 3
LENGTH: 404
TYPE: PRT
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                                                                                                                                                                                 Sequence 3, Application US/09805427A Patent No. US20020176867A1
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SEQ ID NO 173
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                                                                              CURRENT APPLICATION NUMBER: CURRENT FILING DATE: 2001-0
                                                                                                           APPLICANT: Statens Serum Institut
TITLE OF INVENTION: Hybrids of M. tuberculosis Antigens
FILE REFERENCE: 670001-2002.5
                                                                  NUMBER OF SEQ ID NOS: 12
                                                 SOFTWARE: PatentIn version 3.0
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CURRENT FILING DATE: 2001-02-20
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TITLE OF INVENTION: NUCLEIC ACIDS FRAGMENTS AND POLYPEPTIDE FRAGMENTS
TITLE OF INVENTION: DERIVED FROM M. TUBERCULOSIS
FILE REFERENCE: 670001-2002.1
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APPLICANT: NIELSEN, Rikke
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APPLICATION NUMBER: 0376/97
FILING DATE: 1997-04-02
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FILING DATE: 1997-04-18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION: Recombinant Fusion protein ESAT-6-Ag85B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PPLICATION NUMBER: 60/070,488 LING DATE: 1998-01-05
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RASMUSSEN, Peter Birk
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LENGTH: 404
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                                                                                       CURRENT APPLICATION NUMBER: US CURRENT FILING DATE: 2002-05-
                                                                                                                           APPLICANT: DeGroot, Anne S
TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters
FILE REFERENCE: 17999-004 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 0376/97
PRIOR FILLING DATE: 1997-04-02
PRIOR APPLICATION NUMBER: 1277/97
PRIOR FILLING DATE: 1997-11-10
PRIOR APPLICATION NUMBER: 60/044,624
PRIOR FILLING DATE: 1997-04-18
SOFTWARE: PatentIn Ver. 2.1 EQ ID NO 60
                                                  PRIOR APPLICATION NUMBER: 60/190,834 PRIOR FILING DATE: 2000-03-20
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CURRENT FILING DATE: 2001-02-20
PRIOR APPLICATION NUMBER: 09/050,739
PRIOR FILING DATE: 1998-03-30
PRIOR FILING DATE: 1998-03-30
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TITLE OF INVENTION: NUCLEIC ACIDS FRAGMENTS AND POLYPEPTIDE FRAGMENTS
TITLE OF INVENTION: DERIVED FROM M. TUBERCULOSIS
FILE REFERENCE: 670001-2002.1
                                  NUMBER OF SEQ ID NOS: 81
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WELDINGH, Karin
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; ORGANISM: Mycobacterium tuberculosis
US-10-044-703-60
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                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: DeGroot, Anne S
TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters
FILE REFERENCE: 17999-004 US
                                                                                                                                           SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 59
LENGTH: 13
TYPE: PRT
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Best Local :
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PRIOR FILING DATE: 2000-03-20
NUMBER OF SEC. T.
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CURRENT FILING DATE: 2002-05-20
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NFAGIEAAA 9
                                                                                                                                                                                                                                                                                                                                   Application US/10044703 No. US20020192233A1
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0.0017;
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NFAGIEAAA 9

RESULT 11 US-09-813-333-61

Sequence 61, Application US/09813333 Patent No. US20020119160A1 GENERAL INFORMATION:

CURRENT APPLICATION NUMBER: US/OCURRENT FILING DATE: 2001-03-20

PRIOR APPLICATION NUMBER: 60/190,834 PRIOR FILING DATE: 2000-03-20

PRIOR FILING DATE: 2000-03-20 NUMBER OF SEQ ID NOS: 81

APPLICANT: DeGroot, Anne S
TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters
FILE REFERENCE: 17999-004 US

US/09/813,333

SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 61 LENGTH: 20

RESULT 9

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; Sequence 59, Application US/09813333
; Patent No. US20020119160A1
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                                                                                                ; ORGANISM: Mycobacterium tuberculosis US-10-044-703-61
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US-10-044-703-61
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SEQ ID NO 59
LENGTH: 13
                                                                                                                                SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 61
LENGTH: 20
TYPE: PRT
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                                                    Best
                                                                                                                                                                                                                                           TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters FILE REFERENCE: 17999-004 US CURRENT APPLICATION NUMBER: US/10/044,703
CURRENT FILING DATE: 2002-05-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT FILING DATE: 2001-
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TITLE OF INVENTION: Human T Cell Response to MHC-Binding Motif Clusters
FILE REFERENCE: 17999-004 US
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                                 Conservative
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100.0%; Pred. No.
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Pred. No.
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TITLE OF INVESTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-125
CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR FILING DATE: 2000-04-07
PRIOR FILING DATE: 2000-04-07
PRIOR APPLICATION NUMBER: JP 00/280988
PRIOR APPLICATION NUMBER: JP 00/280988
PRIOR FILING DATE: 2000-08-03
NUMBER OF SEQ ID NOS: 7059
SOFTWARE: PATENTIN VET. 3.0
SEQ ID NO 4782
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US-09-815-242-12006
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US-09-738-626-4782
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Best Local S
Matches 9
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Best Local Similarity
Symptomics
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APPLICANT: Xu, H. Howard
TITLE OF INVENTION: Identification of Essential Genes
TITLE OF INVENTION: Prokaryotes
FILE REFERENCE: ELITRA.011A
CURRENT APPLICATION NUMBER: US/09/815,242
CURRENT FILING DATE: 2001-03-21
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Local Similarity 100.0%;
hes 9; Conservative (
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1 NFAGIEAAA 9
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Trawick, John D.
Carr, Grant J.
Yamamoto, Robert T.
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TATEISHI, NAOKO
SENOH, AKIHIRO
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Zyskind, Judith W.
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OCHIAI, KEIKO
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Pred. No. 40;
4; Mismatches
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PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: JP 00/159162
PRIOR FILING DATE: 2000-04-07
PRIOR APPLICATION NUMBER: JP 00/280988
PRIOR FILING DATE: 2000-08-03
NUMBER OF SEQ ID NOS: 7059
SOFTWARE: PATENTIN Ver. 3.0
SEQ ID NO 6880
LENGTH: 301
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                                                                                                                             ; TYPE: PRT ; ORGANISM: Corynebacterium glutamicum US-09-738-626-6880
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Best Local S
Matches 5
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SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 12006
LENGTH: 916
TYPE: PRT
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Best Local S
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APPLICANT: IKEDA, MASATO
APPLICANT: OZAKI, AKIO
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-125
                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
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PRIOR APPLICATION NUMBER: 60/269,308
PRIOR FILING DATE: 2001-02-16
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57 LTEDEWNYA 65
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OCHIAI, KEIKO
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TATEISHI, NAOKO
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                                                                  3; Mismatches
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                                                                              Score 38;
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1.9e+02;
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RESULT 15
US-09-847-081B-4
; Sequence 4, Application US/09847081B
; ENERAL INFORMATION: DAM encoding the tobacco phytoene synthase
; FILE OF INVENTION: DAM encoding the tobacco phytoene synthase
; FILE REFERENCE: Le A 34 326
; CURRENT APPLICATION NUMBER: US/09/847,081B
; CURRENT FILING DATE: 2001-05-02
; NUMBER OF SEQ ID NOS: 10
; SEQ ID NO 4
; SEQ ID NO 5: 10
; SEQ ID NO 5: 10
; SEQ ID NO 5: 10
; SEQ ID NO 6: 10
; SEQ ID NO 7: 10
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Title:
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Listing first 45 summaries
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Maximum DB seq length: 2000000000
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SPTREMBL_21:*

1: sp_archea:*
2: sp_bacteria:
3: sp_fung1:*
4: sp_human:*
5: sp_invertebr
6: sp_mammal:*
7: sp_mhc:*
8: sp_organel:*
9: sp_plant:*
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11: sp_vinus:*
13: sp_vinus:*
14: sp_vinus:*
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Gapop 10.0 , Gapext 0.5
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79
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                                                                                                                                                                                                                                 sp_archea:*
sp_bacteria:*
sp_fungi:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. sp_rodent:*
sp_virus:*
sp_vertebrate:*
sp_unclassified:*
sp_rvirus:*
sp_rvirus:*
sp_bacteriap:*
sp_archeap:*

sp_invertebrate:*
sp_mammal:*
sp_mhc:*

sp_organelle:*
sp_phage:*
sp_plant:*

SUMMARIES

16	15	14	13	12	11	10	9	&	7	6	u	4	ω	2	,	Result No.
39	39	39	39	39	40	41	41	41	41	41	41	42	42	43	43	Score
49.4	49.4	49.4	49.4	49.4	50.6	51.9	51.9	51.9	51.9	51.9	51.9	53.2	53.2	54.4	54.4	Query Match I
328	325	282	219	81	38	934	471	445	443	440	182	723	369	247	217	Length DB
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051337	Q966M0	Q8RQL0	Q8YVX4	Q981F7	Q9KTC4	9FAX8Ö	028786	Q9KV76	Q9AMK7	Q9FAD1	P95622	Q9A279	Q9Z839	Q8X3F8	Q9KMY8	ID
051337 borrelia bu	Q966m0 caenorhabdi	Q8rq10 pasteurella	Q8yvx4 anabaena sp	Q98if7 rhizobium l	Q9ktc4 vibrio chol	Q8xvj6 ralstonia s	O28786 archaeoglob	Q9kv76 vibrio chol	Q9amk7 vibrio vuln	Q9fadl moritella j	P95622 rhizobium l	Q9a279 caulobacter	Q9z839 chlamydia p	Q8x3f8 escherichia	Q9kmy8 vibrio chol	Description

45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
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Q8YA41	032816	Q9JТВ7	Q9JYE0	Q99SG3	Q95V33	Q93D85	Q8TTE1	Q8X3Q2	Q8VIE5	Q91ZE6	Q46002	Q9P4T8	Q824M1	Q8ZN34	Q92QQ5	Q9EWU0	052197	Q41401	08UD90	Q9РНЕ6	Q9R6G8	Q9A560	Q98BQ8	Q9LCT3	Q9CES5	Q8W4E7	004629	Q8YTF8
Q8ya41 listeria mo		Q9jtb7 neisseria m		Q99sg3 staphylococ	Q95v33:spodoptera	Q93d85 streptococc	Q8tte1 methanosarc	Q8x3q2 escherichia	Q8vie5 mus musculu	Q91ze6 mus musculu	Q46002 clostridium	Q9p4t8 agaricus bi	Q8z4ml salmonella	Q8zn34 salmonella		Q9ewu0 streptomyce	052197 azotobacter				Q9r6g8 agrobacteri	Q9a560 caulobacter		Q91ct3 pseudomonas	G	Q8w4e7 arabidopsis	arabidops	Q8ytf8 anabaena sp

ALIGNMENTS

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2 TEQQWNFAGIEA 13	Query Match 54.4%; Score 43; DB 16; Length 217; Best Local Similarity 75.0%; Pred. No. 14; Matches 9; Conservative 0; Mismatches 3; Indels 0; Gaps 0;	COMPLETE PROTEOME. SEQUENCE 217 AA; 24897 MW; 79B473E32313B5E8 CRC64;	Pfam; PF03046; HCCA_isomerase; 1.	InterPro; IPR004287; HCCA_isomerase.	TIGR: VCA0178;	Nature 405:477-483(2000).	cholerae.";	"DNA sequence of both chromosomes of the cholera pathogen Vibrio	Fraser C.M.;	Salzberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.,	McDonald L., Utterback T., Fleischmann R.D., Nierman W.C., White O.,	Ermolaeva M.D., Vamathevan J., Bass S., Qin H., Dragoi I., Sellers P.,	Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,	Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,	Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,	MEDLINE-20406833; PubMed-10952301;	STRAIN=EL TOR N16961 / SEROTYPE O1;	SEQUENCE FROM N.A.	[1]	NCBI_TaxID=666;	Bacteria; Proteobacteria; gamma subdivision; Vibrionaceae; Vibrio.	Vibrio cholerae.	VCA0178.	tein	01-JUN-2002 (TrEMBLrel. 21, Last annotation update)		2000 (TrEMBLrel.	Q9KMY8;	Q9KMY8 PRELIMINARY; PRT; 217 AA.	RESULT 1

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PROSITE; PS00761; SPASE_I_3; UNKNOWN_1.
Hypothetical protein.
SEQUENCE 247 AA.
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01-MAR-2002
01-MAR-2002
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Q9Z839;
                    MEDLINE=20150255; PubMed=10684935;
Read T.D., Brunham R.C., Shen C., Gill S.R., H
White O., Hickey E.K., Petterson J., Utterback
Linher K., Weidman J., Khouri H., Craven B., B
Gwinn M., Nelson W., DeBoy R., Kolonay J., McC
Eisen J., Fraser C.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-21156231; PubMed-11258796; Kurokawa K., Ishii K., Yokoyy Hayashi T., Makino K., Ohnishi M., Kurokawa K., Ishii K., Yokoyy Hayashi T., Ohtsubo E., Nakayama K., Murata T., Tanaka M., Tobe T. Iida T., Takami H., Honda T., Sasakawa C., Ogasawara N., Yasunag Kuhara S., Shiba T., Hattori M., Shinagawa H.; "Complete genome sequence of enterohamorrhagic Escherichia coli O157:H7 and genomic comparison with a laboratory strain K-12.";
                                                                                                                             Kalman S., Mitchell W., Marathe R., Lammel C., Fan J., Hyman R.W., Olinger L., Grimwood J., Davis R.W., Stephens R.S.; "Comparative genomes of Chlamydia pneumoniae and C. trachomatis."; Nat. Genet. 21:385-389(1999).
                                                                                                                                                                          STRAIN-CWL029;
MEDLINE-99206606; PubMed-10192388;
                                                                                                                                                                                                                                  FE-S oxidoreductase.
CPN0513 OR CPU0513 OR CP0240.
Chlamydia pneumoniae (Chlamydophila pneumoniae).
Bacteria; Chlamydiales; Chlamydiaceae; Chlamydophila.
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01-MAY-1999 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
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Bacteria; Proteobacteria;
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iae AR39.°;
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al protein ECs1576.
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RX MEDLINE-21173598; PubMed-11259647;
RX MEDLINE-21173598; PubMed-11259647;
RA Nierman W.C., Feldblyum T.V., Laub M.T., Paulsen I.T., Nelson K. RA Eisen J., Heidelberg J.F., Alley M.R.K., Ohta N., Maddock J.R., RA Potocka I., Nelson W.C., Newton A., Stephens C., Phadke N.D., El: RA DeBoy R.T., Dodson R.J., Durkin A.S., Gwinn M.L., Haft D.H., RA Kolonay J.F., Smit J., Craven M.B., Khouri H., Shetty J., Berry R RA Utterback T., Tran K., Wolf A., Vannathevan J., Ermolaeva M., Whit RA Salzberg S.L., Venter J.C., Shapiro L., Fraser C.M.;
T' "Complete genome sequence of Caulobacter crescentus.";
L Proc. Natl. Acad. Sci. U.S.A. 98:4136-4141(2001).
R EMBL; AB006026; AAK25649.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                          Q9A279;
01-JUN-2001 (TrEMBLrel. 17, La
01-JUN-2001 (TrEMBLrel. 20, La
01-MAR-2002 (TrEMBLrel. 20, La
Proly1 oligopeptidase family p
CC3687.
                                                                       Pfam; PF00326; Peptidase_S9; 1.
Pfam; PF02897; Peptidase_S9_N; 1.
PRINTS; PR00862; PROLIGOPTASE.
Complete proteome.
SEQUENCE 723 AA; 78547 MW; 051
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TIGR;
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TIGRFAMs; TIGR00423;
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InterPro; IPR002470;
InterPro; IPR000379;
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hara S., Nakazawa
ces of Chlamydia |
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Q9FAD1;
01-MAR-2001
01-MAR-2001
01-JUN-2002
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P95622;
01-MAY-1997
                                                                                                                                                                                                                                                         "Expression of Lysin Decarboxylase Gene Is Regulate Deep-Sea Plezophilic Bacterium, Moritella japonica. Submitted (APR-2000) to the EMBL/GenBank/DDBJ datab EMBL; AB041735; BAB16717.1; -. IRR01293; AA/rel_prmease1. InterPro; IPR004041; Permease. InterPro; IPR004041; Permease.
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"The cytochrome bc1 complex but not CycM is nece

nitrogen fixation by Rhizobium leguminosarum.";

Microbiology 142:3381-3388(1996).

EMBL; x98018; CAA66651.1; -

EMBL; x98018; CAA66651.1; -

InterPro; IPR000345; CytC.heme_bind.

InterPro; IPR002326; Cyt_C1.

Pfam; PF02167; Cytochrome_C1; 1.

Pfam; PF02167; Cytochrome_C1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Moritella japonica.
Bacteria; Proteobacteria;
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Rhizobium leguminosarum.
Bacteria; Proteobacteria; alpha subdivision; Rhizobiaceae
Rhizobiaceae; Rhizobium.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-DSK1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=89067;
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STRAIN-EL TOR N16961 / SEROTYPE 01;

MEDLINE-20406833; PubMed-10952301;

Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,

Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,

Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,

Ermolaeva M.D., Vamathevan J., Bass S., Qin H., Dragoi I., Seilers P.,

McDonald L., Utterback T., Fleischmann R.D., Nierman W.C., White O.,

Salzberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.,

Fraser C.M.;
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"Vibrio vulnificus cadBA genes.";
Submitted (NOV-2000) to the EMBL/GenBank/DDBJ
EMBL; AF324470; AAK01663.1; -
InterPro; IPR002293; AA/rel_prmease1.
InterPro; IPR004841; Permease.
Pfam; PF00324; aa_permeases; 1.
SEQUENCE 443 AA; 46752 MW; B88FD7E18803675
                                                                                                                               "DNA sequence of both chromosomes cholerae.";
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01-JUN-2001 (TrEMBLrel. 17, I
01-MAR-2002 (TrEMBLrel. 20, I
Cadaverine/lysine antiporter.
                                                              InterPro; IPR002293; AA/rel_prmease1
InterPro; IPR004841; Permease.
Pfam; PF00324; aa_permeases; 1.
                                                                                               EMBL; AE004116; AAF93455.1; TIGR; VC0280; -.
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01-JUN-2002
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01-OCT-2000
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Bacteria; Proteobacteria;
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                                                                                                                      Nature 406:477-483(2000).
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                                           445 AA;
                                                                                                                                                                                                                                                                                                                              (TrEMBLrel.) (TrEMBLrel.)
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                                           46907 MW;
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r CadB, putative
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Pred.
            Pred. No.
                     Score 41;
                                           3A64F21B9680684C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B88FD7E188036751 CRC64;
                                                                                                                                                                                                                                                                                    subdivision; Vibrionaceae; Vibrio
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                     Length 445;
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D7 Q1-MG
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CR Q1SCA
QC Bacte
QC Ralst
QC Ralst
QC Ralst
QC RALST
RN [1]
RP SEQUE
RN [1]
RP SEQUE
RN [1]
RP SEQUE
RN SALBAT
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Hypothetical p
SEQUENCE 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OBXVJ6 PRELIMINARY; PRT; 934 AA.

OBXVJ6: O1-MAR-2002 (TrEMBLrel. 20, Created)
O1-MAR-2002 (TrEMBLrel. 21, Last sequence update)
O1-JUN-2002 (TrEMBLrel. 21, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              028786;
                   Salanoubat M., Genin S., Artiguenave F., Gouzy J., Mangenot S., Arlat M., Billault A., Brottier P., Camus J.C., Cattolico L., Chandler M., Choisne N., Claudel-Renard C., Cunnac S., Demange N Gaspin C., Lavie M., Moisan A., Robert C., Saurin M., Schiex T., Siguler P., Thebault P., Whalen M., Wincker P., Levy M., Weissenbach J., Boucher C.A.;
"Genome sequence of the plant pathogen Ralstonia solanacearum.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Klenk H.P., Clayton R.A., Tomb J.-F., White O., Nelson K.E., Ketchum K.A., Dodson R.J., Gwinn M., Hickey E.K., Peterson J.D., Richardson D.L., Kerlavage A.R., Graham D.E., Kyrpides N.C., Richardson D.L., Quackenbush J., Lee N.H., Sutton G.G., Gill S., Kirkness E.F., Dougherty B.A., McKenney K., Adams M.D., Loftus B., Peterson S., Reich C.I., McNeil L.K., Badger J.H., Glodek A., Zhou Overbek R., Gocayne J.D., Weiddman J.F., McConnald L., Utterback T., Cotton M.D., Spriggs T., Artiach P., Kaine B.P., Sykes S.M., Sadow P.W., D'Andrea K.P., Bowman C., Fujii C., Garland S.A., Mason T.M., Olsen G.J., Fraser C.M., Smith H.O., Woese C.R.,
                                                                                                                                                                                                            STRAIN-GMI1000;
MEDLINE-21681879; PubMed-11823852;
                                                                                                                                                                                                                                                                                                                                                                        Raistonia solanacearum (P. Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                         Probable preprotein translocase SECA subunit. SECA OR RSC2834 OR RS00271.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "The complete genome sequence of the hyperthermophilic, sulphate-reducing archaeon Archaeoglobus fulgidus.";
Nature 390:364-370(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Archaeoglobus fulgidus.
Archaea; Euryarchaeota; Archaeo
Archaeoglobaceae; Archaeoglobus
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01-MAR-2002
                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Archaeoglobaceae;
NCBI_TaxID-2234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hypothetical
AF1486.
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  e sequence o
415:497-502
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8; Conserv
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el. 20,
AF1486.
                                                                                                                                                                                                                                                                                                                                                                     (Pseudomonas solanacearum).
ia; beta subdivision; Ralstonia group;
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Last
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892A03A47FBDA771 CRC64;
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                                                                                                              01-OCT-2001 (
01-OCT-2001 (
01-MAR-2002 (
Hypothetical
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STRAIN=EL TOR N16961 / SEROTYPE O1;

STRAIN=EL TOR N16961 / SEROTYPE O1;

MEDLINE=20406833; PubMed=10952301;

Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,

Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,

Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,

Ermolaeva M.D., Vamathevan J., Bass S., Qin H., Dragoi I., Sellers

McDonald L., Utterback T., Fleischmann R.D., Nierman W.C., White O.

Salzberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.

Frase-C.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9KTC4;
01-OCT-2000
01-OCT-2000
01-DEC-2001
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InterPro: IPR004027; SEC_C_moti
Pfam; PF02810; SEC-C; 1.
Pfam; PF01043; SecA_protein; 1.
PRINTS: PR00906; SECA.
                     Bacteria; Proteobacteria; alpha subdivision; Phyllobacteriaceae; Mesorhizobium.
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                                                                 Rhizobium loti (Mesorhizobium loti)
                                                                                           MSR2423.
                                                                                                                                                                                                         Q98IF7;
                                                                                                                                                                                                                                 Q98IF7
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EMBL; AE004179; AAF94140.1;
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7; Conserv
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                                                                                                                                   (TrEMBLrel. 18, Created)
(TrEMBLrel. 18, Last sequence update)
(TrEMBLrel. 20, Last annotation updat
                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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8 AA; 4427 MW; 3077749E7004F910 CRC64;
                                                                                                              protein msr2423.
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60.0%;
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                                                                                                                                                                                                                                                                                                                                               31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gamma subdivision;
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Last annotation updat
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Pred. No. 1.46
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Q8RQL0;
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InterPro; IPR003358; Methyltransf_4.
InterPro; IPR000351; SAM_bind.
InterPro; IPR000051; SAM_bind.
Pfam; PF02390; Methyltransf_4; 1.
TIGRFAMS; TIGR00091; Cons_hypoth91; 1.
Hypothetical protein; Complete proteome.
SEQUENCE 219 AA; 24847 MW; 6B255C82EA25C83C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cyanobacterium Anabaena sp. strain DNA Res. 8:205-213(2001). EMBL; AP003587; BAB73544.1; -.
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Kaneko T., Nakamura Y., Wolk C.P., Kuritz T., Sas
Watanabe A., Iriguchi M., Ishikawa A., Kawashima
Kishida Y., Kohara M., Matsumoto M., Matsuno A.,
Nakazaki N., Shimpo S., Sugimoto M., Takazawa M.,
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Pfam; PF01402; HTH_4; 1.

Hypothetical protein; Complete proteome.

SEQUENCE 81 AA; 9035 MW; 7652A22945D0BFC7 CRC64;
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DNA Res. 7:331-338(2000).
EMBL; AP002999; BAB49559.1; -.
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MEDLINE=21082930; PubMed=11214968;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Complete genomic sequence of the filamentous nitrogen-fixing syanobacterium Anabaena sp. strain PCC 7120.";
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RESULT
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Q966M0;
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SEQUENCE 282 AA; 31293 MW; 443164BF99809E8E CRC64;
                                                                                                                                                                       "Direct Submission.";
Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases
EMBL; AC006625; AAA68271.1; -.
SEQUENCE 325 AA; 37141 MW; 55EAA4186BC645C0 CRC64;
                                                                                                                                                                                                                                                                                                                                                  "The sequence of C. elegans submitted (MAR-1999) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     investigating biology. The C. elegans: a platform for Science 282:2012-2018(1998).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Caenorhabditis elegans.
Eukaryota; Metazoa; Nematoda; Chromadorea;
Rhabditidae; Peloderinae; Caenorhabditis.
NCBI_TaxID=6239;
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BLA.
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STRAIN-BRISTOL N2;
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nilarity 46.28;
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EMBL/GenBank/DDBJ
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Search completed: July Job time: 27 secs

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GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.

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Post-processing: Minimum Match 0%
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79
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No. 1 2 3 4	Score 79 79 79 79	Ouery Match Length DB 15 2: 100.0 15 2: 100.0 17 2: 100.0 19 11 100.0 51 11	ength 15 15 15 17 19	DB 21 23 23 23 18 18 18	AAY94590 AAAV17432 AAX881 AAW35548 AAW32566	Mycobacterium tube Early secreted ant Antigenic N-termin ESAT-6 antigen SEQ Mycobacterium tube
6	79	100.0	51	18	AAW32339	Mycobacterium tube
7	79	100.0	51	19	AAW81701	M. tuberculosis im
œ	79	100.0	51	19	AAW64334	Mycobacterium tube
9	79	100.0	51	20	AAY39131	M. tuberculosis ES
10	79	100.0	51	20	AAY38988	M. tuberculosis re

Novel method of diagnosing infection, or exposure of a host, to a mycobacterium comprising contacting T cells from the host with ESAT-6 derived peptides - $\,$

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11
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621	599	5/6	371	320	253	243	212	169	81	317	295	295	176	413	409	20	13	10	10	15	15	20	404	404	403	403	196	95	95	95	95	95	51	51
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ABP26041	ABP30263	ABB93606	AAG09603	AAG10428	AAM23550	AAG65891	AAG10429	AAG10430	AAU42989	ABG03344	AAB79230	AAG91028	AAY84601	AAW41058	AAY35136	AAE12276	AAE12274	AAE05636	AAW70180	AA017433	AAY94595	AAE12275	AAY21962	AAW72942	AAY21963	AAW72943	AAY29888	AAM50740	AAB35219	AAY29788	AAY29890	AAW11494	AAE17580	AAU01897
Streptococcus poly	treprococcus	- Cu	Arabidopsis thalia		Œ	Amino acid sequenc	Arabidopsis thalia		Propionibacterium	Novel human diagno	Corynebacterium gl	C glutamicum prote	Amino acid sequenc	Phytoene synthase	Chlamydia pneumoni	Mycobacterium tube	Mycobacterium tube	N-terminal peptide	N-terminal amino a	Early secreted ant	Mycobacterium tube	.Mycobacterium tube	Amino acid sequenc	Mycobacterium tube	Amino acid sequenc		Mycobacterium tube	Mycobacterium tube	M tuberculosis Rv3	Mycobacterial tube	Mycobacterium tube	ESAT6. Mycobacter	Mycobacterium spec	Mycobacterium tube

ALIGNMENTS

X P P P P	V D S	Y PI	PA	PR	XX	PF	PD	XX	80 X	XX	X E	X DI	X A A	RESULT 1 AAY94590 ID AAY
Novel method of diagnosing infection, or exposur mycobacterium comprising contacting T cells from derived peptides -	WPI; 2000-365579/31.	Lalvani A, Pathan AA;	(ISIS-) ISIS INNOVATION LTD.	04-NOV-1998; 98US-0107004.		03-NOV-1999; 99WO-GB03635.	11-MAY-2000.	WO200026248-A2.	Mycobacterium tuberculosis.	Tuberculosis; infection diagnosis; ESAT-6.	Mycobacterium tuberculosis ESAT-6 peptide ES1.	28-NOV-2000 (first entry)	AAY94590;	LT 1 4590 AAY94590 standard; peptide; 15 AA.

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RESULT 2
AAO17432
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                   compositions comprising a source of CD4+ T-cell epitope(s) of the target antigen, where the second composition further includes an epitope which is same as the epitope of the first composition, where the source of the epitopes for the compositions is a non-replication, where the source of the is same as the epitope of the first composition, where the source of the epitopes for the compositions is a non-replication or replication impalized recombinant poxvirus vector. The methods are useful for inducing CD4+ T-cell immune responses against diseases such as tuberculosis, human immunodeficiency virus (HIV) (persistent viral infection), malaria, Helicobacter pylori, influenza, hepatitis (chronic hepatitis B and C), cytomegalovirus (CMV), viral infection, herpes virus-induced disease, leprosy and diseases caused by non-malarial protozoan parasite such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             derived from the ESAT 6 gene. This sequence is one of eleven peptides derived from the ESAT 6 gene (see AAY94590 to AAY94600). The peptides are recognised, to varying degrees, by the T cells of patients with tuberculosis. When the peptides are combined together as a panel they provide a high specificity and sensitivity diagnostic test for M. tuberculosis infection. This test has the advantage that it does not give false positives for patients who have been vaccinated with BCG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
                                                                                                                                                                                                                                                                                               The present invention relates to a method of inducing a CD4+ T-cell response against a target antigen, by administering two different
                                                                                                                                                                                                                                                                                                                                                                                Example 1; Page
                                                                                                                                                                                                                                                                                                                                                                                                                             Inducing CD4+ T-cell response against target antigen by administering composition comprising a source of CD4+ epitopes which is a non-replicating or replication impaired recombinant poxvirus vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-SEP-2001; 2001WO-GB04116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tuberculosis; TB: vaccination; vaccine; CD4+ T cell immune response; poxvitus vector; HIV; malaria; Helicobacter pylori; influenza; hepatitis; viral infection; leprosy; protozoan parasite; cancer; tuberculostatic; anti-HIV; protozoacide; antibacterial; virucide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAO17432 standard; peptide; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (OXXO-) OXXON PHARMACCINES LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  McShane H,
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                                                                                                                                                                                                                                                                                                                                                                                21;
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protozoan
is an epit
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                          prevention allergens,
                              This sequence represents an antigenic N-terminal sequence Mycobacterium tuberculosis early secreted antigenic target protein. The peptide is presented on the new ligand present of the invention. The invention relates to method for prepresenting assemblies (LPAs) comprising:

(a) providing by solid phase synthesis, or fragment coupling comprising desired sequences (e.g. the present sequence), being attached to a solid phase;

(b) if necessary, deprotecting any N-terminal amino groups ligands are still attached to the solid phase;
                                                                                                                                                                                                                                                            WPI;
                                                                                                                                                                                                                                                                                     Holm
         (c) reacting the ligands having unprotected N-terminal amino groups with
an achiral di-, tri- or tetracarboxylic acid, to provide a construct
                                                                                                                                                                        Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mycobacterium tuberculosis useful in
                                                                                                                                                                                                                                    New ligand
                                                                                                                                                                                                                                                                                                                                                 29-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                         29-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                06-APR-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    neurotropic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ligand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antigenic N-terminal sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY88581 standard; peptide;
                                                                                                                                                                                                                                                                                                           (MAIOH)
                                                                                                                                                                                                                                                                                                                        (STAT-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                     P,
                                                                                                                                                                                                                                                            2000-303438/26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  presenting assembly; early secreted antigen target 6; ESAT-6; ia; detect; diagnosis; allergen; cancer; vaccine; immune resporopic factor; autoimmune-system related compound; LPA; fungi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MTEQQWNFAGIEAAA 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15;
                                                                                                                                                                                                                                                                                                                        STATENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HTEQQWNFAGIEAAA
                                                                                                                                                                                                                                                                                    Jorgensen
                                                                                                                                                                       Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cell-adhesion molecule
                                                                                                                                                                                                          presenting assemblies useful for diagnosis, treatment of diseases caused by e.g. viruses, bacteria, toxins, autoimmune system-related compounds, cancer-related
                                                                                                                                                                                                 cell adhesion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tuberculosis
                                                                                                                                                                        81;
                                                                                                                                                                                                                                                                                                                                                                         99WO-DK00510
                                                                                                                                                                                                                                                                                                                         SERUM INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note=
                                                                                                                                                                       100pp; English
                                                                                                                                                                                                                                                                                     RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Ala at position 17 is linked via a linker to at position 17 of an identical peptide, where the linker is coch2-cH(NH-Lys)-CH2CO, and there have residue contained in the linker is also bys residue contained in the linker is also
                                                                                                                                                                                                                                                                                    Ostergaard
                                                                                                                                                                                                 molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                             linked to another peptide (see AAY88579)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 15
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of ESAT-6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ₽
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                                                                                                                                                                                                                                                                                    Theisen
                                                                     or fragment coupling,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .2e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of the invention.
                                                                                                           nic target 6 (E
and presenting
d for preparing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                              groups while the
                                                                                                        arget 6 (ESAT-6) resenting assembly preparing ligand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15
                                                                                                                                    from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                     ligands
ligands
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               response;
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RESULT 4
AAW35548
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A non-dendritic peptide carrier (A) has been developed which is coupled through a linker to a solid phase, forming a complex of (A)-solid phase. Where (A) comprises 10-50 amino acids capable of forming a secondary structure in a benign buffer after liberation from the solid phase, and further the (A)-solid phase complex comprises an immunogenic substance and/or an immune mediator coupled on (A). The present sequence represents a peptide used in an example from the present invention. An (A)-solid phase complex can be used as a scaffold for the production of chemical derivatives, characterised by covalently attaching molecules at attachment points. Alternatively (A) is used as a scaffold-peptide for the incorporation into an Immunostimulating Complex (Iscom) resulting an (A)-Iscom complex which is used for the chemical coupling of antigenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (d) cleaving the construct from the solid phase, to provide an LPA comprising ligands having free C-terminal groups. The LPAs can be used for raising an immune response in an animal. They can also be used in vaccines and for generating antibodies in an animal alternatively they can be used for the treatment, alleviation, detection, diagnosis, or prophylaxis of diseases caused by viruses, bacteria, toxins, allergens, autoimmune system-related compounds, cancer related compounds, cell adhesion molecules, neurotropic factors, fungi or parasites. Use of the method enables the preparation of very long ring systems interconnected by reaction with the achiral di-, tri- or tetracarboxylic acid. The ring structure formed between desired sequences further enables additional presentation of desired sequences and chemical moieties. The LPAs provide very flexible systems for polyfunctional constructs, and furthermore,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             T-cell stimulatory scaffold; inhibition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Non-dendritic peptide carrier linked to a solid phase – usefu diagnostic agent and as a scaffold for production of chemical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       03-APR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                               derivatives
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Heegaard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                      Example
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antigen
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15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                      32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MTEQQWNFAGIEAAA 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MTEQQWNFAGIEAAA 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of high purity are obtained.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17
                                                                                                                                                                                                                                                                                                                                                                                   Page 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jakobsen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO:120 from WO9738011.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96DK-0000398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97WO-DE00146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        peptide;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ptide; immunogen; non-dendritic; carrier;
metastasis; wound healing; solid phase.
                                                                                                                                                                                                                                                                                                                                                                                   262pp; English.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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1.3e-06;
ches 0;
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Sequence

5

M.tuberculosis (for treatment or prevention).

to induce an immune response

non-specific adjuvant,

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RESULT 5
AAW32466
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                     12-JUL-1996;
01-SEP-1995;
22-SEP-1995;
22-MAR-1996;
05-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               substances in an aqueous solution by conjugation. (A) derivatised with one or more peptides having fibronectin. I mainin. or vitronectin-like binding activities can be used for the promotion of cell-attachment to plastic surfaces, in particular to inhibit tumour growth and metastasis, and for promotion of wound healing. Also a derivatised (A) can be used for the selection of specifically-binding aptamers or as a diagnostic agent. Such diagnostic (A) molecules could be used to detect molecules derived from or indicative of pregnancy or of a disease, such as an infectious autolicular could be used to detect molecules are the selection of specifically such as an infection.
                                              modifications). The present sequence represents a M.tuberculosis antigen, ESAT-6. The immunogenic protein, and fusion proteins containing one or more of the proteins or one of the proteins plus ESAT-6, are useful in vaccines, preferably when formulated with a
                                                                                                  A new immunogenic polypeptide has been developed comprising an immunogenic part of a soluble Mycobacterium tuberculosis antige its variant differing only in conservative substitutions and/or
                                                                                                                                                                                                         New
                                                                                                                                                                                                                                                                      Campos-neto Twardzik DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         skin
                                                                                                                                                                                                                                   N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                             13-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW32466 standard;
                                                                                                                                                      Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                   30-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9709428-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mycobacterium tuberculosis antigen ESAT-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                            useful
                                                                                                                                                                                                                                                                                                              (CORI-) CORIXA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         infectious, autoimmune or cancerous
                                                                                                                                                                                diagnosis
                                                                                                                                                                                            immunogenic polypeptide(s) from Mycobacterium tuberculosis
ful in vaccines for prevention or treatment of tuberculosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        testing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MTEQQWNFAGIEAAA 15
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1 MTEQQWNFAGIEAAA 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           l Similarity
15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunogen; vaccine;
                                                                                                                                                                                                                                                             A, L.
R, Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19
                                                                                                                                                     Page 135; 168pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        M.tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tuberculosis
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96US-0620874.
96US-0659683.
                                                                                                                                                                                                                                                                      Dillon Do
                                                                                                                                                                                                                                                                                                               CORP.
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95US-0523436
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                                                                                                                                                                                                                                                                                    В,
                                                                                                                                                                                           prevention
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                                                                                                                                                                                                                                                                                   Houghton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tuberculosis; non
                                                                                                                                                      English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disease.
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                                                                                                                                                                                                                                                                                    SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     specific adjuvant;
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RESULT 6
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Matches 15
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Best Local S
Matches 15
                                                                                                                                                                                                       A new immunogenic polypeptide has been developed comprising an immunogenic part of a soluble Mycobacterium tuberculosis antigen (or its variant differing only in conservative substitutions and/or modifications). The present sequence represents a specifically claimed sequence of the ESAT-6 M. tuberculosis antigen. The immunogenic polypeptide can be used to diagnose M.tuberculosis infection by forming complexes with specific antibodies in the sample. Fragments of DNA encoding the immunogenic polypeptide can be used as diagnostic primers or probes and agents that bind to the antigen, especially monoclonal antibodies or equivalent polyclonal antibodies. Are also work for the diagnostic primers antibodies or equivalent polyclonal antibodies.
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01-SEP-1995;
22-SEP-1995;
22-MAR-1996;
05-JUN-1996;
                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                        Claim 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Campos-neto A, Dille
Twardzik DR, Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    skin
                                                                                                                                                                                                                                                                                                                                                                                                                      New immunogenic polypeptide(s) - useful for diagnosis of M. tu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-AUG-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterium
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW32339;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW32339 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (CORI-) CORIXA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1997-192904/17.
DB; AAT91463.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   testing;
                                                                                                   l Similarity
15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
15; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MTEQQWNFAGIEAAA 15
||||||||||||||
MTEQQWNFAGIEAAA 15
                                                      MTEQQWNFAGIEAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immunogen; vaccine;
ting; M.tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                        Page 147; 190pp; English.
                                                                                                                                                                51
                                                                                               100.0%;
llarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                ξ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tuberculosis antigen ESAT-6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95US-0532136.
96US-0620280.
96US-0658800.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dillon D
dvick TH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96US-0680573
95US-0523435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96WO-US14675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ģ
                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Houghton
                                                                                              Score 79; DB
Pred. No. 4.2
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                      3) from soluble M. tuberculosis antigens
tuberculosis infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tuberculosis; non specific adjuvant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 79; DE
Pred. No. 4.2
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ξ
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hes 0;
                                                                                                                4.2e-06;
                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Reed
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                                                                                                                               18;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SG,
                                                                                                 0;
                                                                                                                           Length
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                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Skeiky YAW
                                                                                                                                51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         51;
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                                                                                               Gaps
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                                                                                                 0
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AAW64334
ID AAW6
XX AAW6
AC AAW6
XX O9-N
CT O
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                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 15
                                                                                               Tuberculosis;
                                                                                                                               Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Campos-Neto A, Dillor
Reed SG, Skeiky YAW,
                                  WO9816645-A2
                                                                Mycobacterium
                                                                                                                                                              09-NOV-1998
                                                                                                                                                                                             AAW64334;
                                                                                                                                                                                                                           AAW64334 standard;
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11-OCT-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tuberculosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-JAN-1999
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DB; AAV64501.
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15; Conserv
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                                                                                                                                                                                                                                                                                                                         MTEQQWNFAGIEAAA 15
                                                                                                                                                                                                                                                                                                         MTEQQWNFAGIEAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pharmaceutical;
                                                                                                                                                                                                                                                                                                                                                                                                                                    51 AA;
                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                            (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                  tuberculosis
                                                                                               infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             immunogenic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dillon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0818112
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein;
                                                                                                                                                                                                                             Protein;
                                                                                                                                                              entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                      100.
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for inducing protective immunity against tuberculosis (TB). This sequence can be formulated into vaccines and/or pharmaceutical compositions for immunising against M. tuberculosis infection or may
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This sequence represents an immunogenic portion of a soluble Mycobacterium tuberculosis (MT) antigen which can be used in a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Immunogenic Mycobacterium tuberculosis polypeptide(s) and DNA to develop products for the detection of M. tuberculosis infectiand for diagnosis, treatment and prevention of tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      M. tuberculosis immunogenic polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                     used for the diagnosis of tuberculosis
                                      tuberculosis antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Twardzik DR, V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       230pp; English.
diagnosis;
                                                                                                                                                                                                                                                                                                                                                        .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  soluble;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          51
                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                    Score 79; DB Pred. No. 4.2); Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ą
                                        ESAT-6
  antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antigen; protective immunity; TB; diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  χ,
                                                                                                                                                                                                                                                                                                                                    4.2e-06;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lodes MJ;
rick TS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ESAT-6
                                                                                                                                                                                                                                                                                                                                                                          DB 19;
                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                            51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  infection
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RESULT 9
AAX739131
ID AAX73
XX AAX7
XX AAX7
XX AAX7
XX AX AX7
XX AX7
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Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This polypeptide comprises an antigenic portion of Mycobacterium tuberculosis antigen ESAN-16. The invention relates to compositions and methods for diagnosing tuberculosis. It provides polypeptides (see AAW64291-W64379) comprising an antigenic portion of a soluble M. tuberculosis antigen, or an immunogenic portion of an M. tuberculosis antigen, as well as fusion proteins between these polypeptides and known antigens such as ESAT-6. Also claimed are methods and diagnostic kits for detecting M. tuberculosis infection in a patient using these polypeptides, antibodies, or
                                            Campos-Neto
Lodes MJ, 1
                                                                                                                                                                                                                                                                                                                                                                Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 M. tuberculosis ESAT-6amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New isolated Mycobacterium tuberculosis polypeptides and DNA - used to develop products for the detection of M. tuberculosis infection and diagnosis of tuberculosis
                                                                                                                                                           05-MAY-1998;
18-FEB-1998;
                                                                                                                                                                                                                            17-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mycobacterium tuberculosis; M. tuberculosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY39131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY39131 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             oligonucleotide probes and primers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Campos-Neto A, Dillon Reed SG, Skeiky YAW,
                                                                                                                                                                                                                                                                         26-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                            immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; AAV44393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-MAR-1997;
11-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-OCT-1997;
                                                                                                              (CORI-) CORIXA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CORI-) CORIXA
                                                                                                                                                                                                                                                                                                                                                                                                                                  .mmunotherapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1998-251292/22.
                                                                                                                                                                                                                                                                                                                                                                                                          response;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MTEQQWNFAGIEAAA 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MTEQQWNFAGIEAAA
                                            o A,
Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first
                                                                                                                                                                                                                                                                                                                                                                tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ξ
                                                                                                                CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                    diagnosis;
                                                                                                                                                        98US-0072967
98US-0025197
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                                                                                                                                                                                                                            99WO-US03268
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96US-0729622
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                                          Dillon DC,
SG, Skeiky
                                                                                                                                                                                                                                                                                                                                                                                                          skin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
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                                                                                                                                                                                                                                                                                                                                                                                                          test.
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Twardzik DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15
                                                                                                                                                                                                                                                                                                                                                                                                                                  immunisation;
                                            YAW, Twardzik DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₽
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No.
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Vedvick TS;
                                                                                                                                                                                                                                                                                                                                                                                                                               vaccine; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .2e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 19;
                                          Houghton R;
R, Vedvick TS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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RESULT 10
AAY38988
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   part of a Mycobacterium tuberculosis antigen (Ag). Also described are vaccines and fusion protein containing M. tuberculosis Ag's.

M. tuberculosis Ag's, DNAs encoding them, derived fusion proteins and other polypeptides fragments, can be used in pharmaceutical compositions or vaccines to generate a protective or therapeutic immune response to M. tuberculosis and as reagents in skin tests for diagnosis of tuberculosis. Ag can induce proliferation of, or cytokine secretion by, T. B or natural killer cells and/or macrophages in tuberculosis-immune subjects. AAZ19249 to AAZ19460 and AAY39083 to
                                                                                      Claim
                                                                                                                                                               Campos-Neto
Lodes MJ, F
                                                                                                                                                                                                                    05-MAY-1998;
18-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New antigens from Mycobacterium tuberculosis useful in diagnostic skin tests and protective or therapeutic vaccines or compositions
                                                                                                                                                                                                                                                     17-FEB-1999;
                                                                                                                                                                                                                                                                           26-AUG-1999
                                                                                                                                                                                                                                                                                                W09942118-A2
                                                                                                                                                                                                                                                                                                                     Mycobacterium
                                                                                                                                                                                                                                                                                                                                           vaccine;
                                                                                                                                                                                                                                                                                                                                                      Antigen;
                                                                                                                                                                                                                                                                                                                                                                           M. tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                05-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                     AAY38988;
                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY38988 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY39225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention describes polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAZ19303
                                                                                                        New polypeptide comprising antigenic portions of
                                                                                                                                                                                                (CORI-) CORIXA
                                                                                                                               1999-527416/44.
DB; AAZ19091.
                                                                                   51; Page 165; 323pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MTEQQWNFAGIEAAA 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                         immunity.
                                                                                                                                                                                                                                                                                                                                                      diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MTEQQWNFAGIEAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            are used in
                                                                                                                                                               o A,
Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       51 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                                                                                     tuberculosis
                                                                                                                                                                                                CORP.
                                                                                                                                                                                                                    98US-0072596
98US-0024753
                                                                                                                                                                                                                                                     99WO-US03265
                                                                                                                                                               Dillon DC,
SG, Skeiky
                                                                                                                                                                                                                                                                                                                                                                          recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein;
                                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                      detection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           299pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .0%;
                                                                                                                                                                                                                                                                                                                                                                         antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                           51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                               YAW, Twardzik DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 79;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                           A
                                                                                                                                                                                                                                                                                                                                                    infection; antibody; immunisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                         protein ESAT-6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 20;
4.2e-06;
thes 0;
                                                                                                                                                              Houghton R;
R, Vedvick TS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         comprising (Ag). Also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          present invention
                                                                                                         M. tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immunogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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This invention describes novel recombinant antigens and their en nucleic acids derived from Mycobacterium tuberculosis. The novel polypeptides are useful for detecting to tuberculosis infection biological sample by detecting antibodies which bind with the polypeptides, and are useful as vaccines for immunizing against the tuberculosis infection. The new detection methods are needed with tuberculosis infection.

their encoding

in a

strategies

new detection do not provide

provide

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RESULT 11
AAU01897
ID AAU01
XX AAU01
XX AY
DT 29-AU
XX ESAT:
KW ESAT:
KW ACQU:
XX MYCOL
XX WO200
XX IO-Q
PR 12-AI
XX IO-Q
PR 07-Q
PR 0
AAE17580
ID AAE1
XX
AC AAE1
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                                                                                       RESULT 12
                                                                                                                                                                                                                                                          Query Match
Best Local :
                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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                                          AAE17580 standard; Protein; 51
                                                                                                                                                                                                                                                                                                                                                               Compositions comprising at least 2 heterologous antigens, as a fusion protein, and vectors expressing the fusion proteins are used as vaccines to prophylactically immunise mammals (especially humans) against infection by Mycobacteria. The compositions contain at least 2 heterologous antigens that increase the serological sensitivity of individuals infected with tuberculosis, a disease frequently affecting patients with acquired immunodeficiency disease, AIDS.
    AAE17580;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The sequence represents Mycobacterium tuberculosis ESAT-6 antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vaccinating against Mycobacteria proteins comprising combinations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Skeiky Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-OCT-1999;
07-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          acquired
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ESAT-6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 164; 168pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-APR-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200124820-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mycobacterium tuberculosis partial antigen ESAT-6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-AUG-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (CORI-) CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
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DB; AAS03787.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15; Conserv
                                                                                                                                                                                                                                        . Similarity
15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antigen;
                                                                                                                                                      MTEQQWNFAGIEAAA 15
                                                                                                                                                                                            MTEQQWNFAGIEAAA 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MTEQOWNFAGIEAAA 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Reed S,
                                                                                                                                                                                                                                                                                                                         51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          51
                                                                                                                                                                                                                                        Conservative
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99US-0158425
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                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Houghton
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           51
                                                                                                                                                                                                                                      0
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                                                                                                                                                                                                                                                          Score 79;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 79;
Pred. No.
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                                                                                                                                                                                                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infections in mammals using of heterologous antigens -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        McNeill PD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . 4.2e-06; thes 0;
                                                                                                                                                                                                                                                          4.2e-06;
                                                                                                                                                                                                                                                                              DB
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                                                                                                                                                                                                                                    0;
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AAW11494 st AAW11494; 27-MAR-1997

(first entry)

standard;

Protein;

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B

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RESULT 13
                                                                                                                 Matches
                                                                                                                                              Query Match
                                                                                                                                Best
                                                                                                                                                                                                                                                                           treatment of tuberculosis infection. Sequences of the invention are useful for eliciting an immune response in a mammal, e.g., human, immunised with BCG. They are useful in the diagnosis, treatment and prevention of Mycobacterium infection. The fusion proteins and the polynucleotides are useful as diagnostic tools in patients infected with Mycobacterium, in vitro and in vivo assays for detecting humoral antibodies or cell-mediated immunity against M. tuberculosis, for the diagnosis of an infection or monitoring of disease progression, as immunogens to generate or elicit a protective immune response in a patient and for raising anti-M. tuberculosis antibodies in a non-human patient and for raising anti-M. tuberculosis antibodies in a non-human
                                                                                                                                                                                                                                                                                                                                                                                                                            compositions comprising such fusion proteins. The present invention particularly relates to nucleic acids encoding fusion proteins that include two or more individual M. tuberculosis antigens which increase the serological sensitivity of sera from individuals infected with tuberculosis and methods for their use in diagnosis, prevention and treatment of tuberculosis infection. Sequences of the invention are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fusion protein; antigen;
tuberculosis; infection;
                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                              animal. Sequences of the invention are also used as vaccines. MTB32A fusion proteins of the invention are useful as in vivo diagnostic agents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to fusion proteins containing at least two Mycobacterium species antigens, nucleotides encoding them and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Composition comprising MTB39 antigen and MTB32A antigen from Mycobacterium species, useful for eliciting immune response in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; AAD28351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-147798/19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-JUN-2000; 2000US-0597796
01-FEB-2001; 2001US-265737P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CORI-) CORIXA CORP
                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Y, Reed S,
                                                                              1 MTEQQWNFAGIEAAA 15
                                                                                                                 15;
                                                                                                                                                                                                               protein.
                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page
                                                MTEQQWNFAGIEAAA
                                                                                                                                                                               51
                                                                                                                 Conservative
                                                                                                                                                                               ĄĄ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122; 136pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             species
                                                                                                                                                                                                                                  skin
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                                                                                                                                                                                                                                test.
                                                                                                                               .09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             serological sensitivity;
vaccine; ESAT-6 protein.
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                                                                                                                               Score 79;
Pred. No.
                                                                                                                                                                                                                               present
                                                                                                                 Mismatches
                                                                                                                                                                                                                               sequence
                                                                                                                               DB 23;
4.2e-06;
                                                                                                                                                                                                                                  is
                                                                                                                                              Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immune response;
                                                                                                                                                                                                                                Mycobacterium
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                                                                                                                 Gaps
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RESULT 14
AAY29890
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                                                                                                                                                                                                                                                                                                                   Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                    This sequence represents the Mycobacterium tuberculosis ESAT6. ESAT6 is also known as the 6kDa antigen, or the HYD76-8 reactive antigen. ESAT6 is also known as the 6kDa antigen, or the HYD76-8 reactive antigen. ESAT6 is released from metabolising bacteria, and can be isolated from short term filtrates grown as shaken cultures for 7 days. ESAT6 also induces a release of interferon gamma from reactivated memory T-lymphocytes. This protein sequence is included in the vaccine of the invention. The vaccine is for immunising an animal (including humans) against tuberculosis caused by a Mycobacteria belonging to the tuberculosis complex. The Mycobacteria of the tuberculosis complex are, M. tuberculosis, M. africanum, and M. bovis. The vaccine can evoke a protective immune response against tuberculosis or a delayed type hypersensitivity reaction. The protein can also be included in a composition for diagnosing tuberculosis. The composition is injected intradermally, and a skin reaction is an indicator of tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ESAT6; Mycobacterium tuberculosis; 6kDa antigen; tuberculosis complex; HYB76-8 reactive antigen; interferon-gamma; memory T-lymphocyte; vaccine M. africanum; M. bovis; delayed-type hypersensitivity reaction; therapy
                               Mycobacterium
                                                      interferon-gamma
                                                               Mycobacterial; lactic acid bacterium; diagnosis; skin test; vaccine; delayed type hypersensitivity; DTH; ESAT-6 homodimer; tuberculosis;
                                                                                                 Mycobacterium
                                                                                                                       18-NOV-1999
                                                                                                                                              AAY29890
                                                                                                                                                                  AAY29890 standard; Protein;
                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vaccine for tuberculosis induces interferon-gamma release from T-lymphocytes - comprises an antigen released from mycobacteria,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Andersen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (STAT-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-JUL-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUL-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ymphocytes - comprises an antigen
immunisation of humans
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ilarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CC to diagnose ongoing/previous sensitisation with these bacteria by CC detecting cytokine release when contacting blood samples with the CC polypeptide. The bioreactive polypeptide may be used in diagnostic CC compositions and vaccines for mycobacteria other than of the CC compositions and vaccines for mycobacteria other than of the CC compositions and vaccines for mycobacteria other than of the CC compositions and vaccines for mycobacteria other than of the CC constantially humans, M. leprae; they are especially useful when they do CC not react with lymphoid cells previously primed with M. tuberculosis CC complex mycobacteria, and so do not give rise to a diagnostic reaction CC in individuals infected with these bacteria. The polypeptides may also CC complex mycobacteria, and so do not give rise to a diagnostic reaction CC in individuals infected with these bacteria. The polypeptides may also CC complex mycobacteria. The polypeptide has similar or higher CC clayed type hypersensitivity (DTH) skin test for tuberculosis, but may CC complex primed from tuberculosis and from previous vaccination. CC The present sequence represents M. tuberculosis ESAT-6 used in the CC exemplification of the present invention.
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Best Local S
Matches 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention describes a bioreactive polypeptide immunologically equivalent analogue) produced in lactic ac which reacts with lymphoid cells primed with Mycobacterium complex mycobacteria (M. tuberculosis, M. africanum or M.
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Search completed: July Job time : 31 secs
                                                                                                                                                                                                                                                    The present invention describes a purified or non-naturally occurring CC polypeptide (I) released from a metabolising mycobacteria comprising an CC ESAT6, also called the 6 kDa antigen. The present sequence represents CC Mycobacterium tuberculosis ESAT-6 protein. Also described is a purified CC or non-naturally occurring polypeptide (II) with the ability to elicit a delayed type hypersensitivity reaction which comprises a T cell CC epitope of (I). (II) can be used with a carrier or vehicle in a CC composition for diagnosing tuberculosis caused by mycobacteria belonging CC to the tuberculosis complex, i.e. Mycobacterium tuberculosis, M. bovis CC and M. africanum. The composition can be used to detect microbial CC antibodies or components of mycobacteria in samples or in animals CC through the use of immunoassays. (II) can be used as a vaccine for immunising an animal, including humans against tuberculosis caused by CC mycobacteria of the tuberculosis-complex. (II) induce a release of CC mycobacteria of the tuberculosis-complex (II) has the same protective immune CC response. Vaccine containing (II) has the same protective potency as the live BCG vaccine against tuberculosis.
                                                                                                                                            Query Match
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Matches 15
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20-SEP-1993;
01-JUL-1994;
                                                                                                                                                                                                                       Sequence
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N-PSDB; AAZ08877.
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WN11_BCHC
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D5BB_SHIFI
D5BB_SHIFI
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SGCE_HUMAN
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                                       P24749 escherichia
Q10312 schizosacch
O73864 brachydanio
D39269 escherichia
P17901 clostridium
O04511 saccharomyc
O9pbg8 xyleila fas
P55123 pasteurella
P03832 shigella dy
Q07095 escherichia
P47940 rattus norv
Q37988 bacteriohia
Q37988 bacterioha
O9zdra rickettsia
P77844 lactobacill
O53092 lactobacill
O53092 lactobacill
O53091 prucella me
O31197 rhizobium m
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P18302 gallus gall
Q9h254 homo sapien
P73161 synechocyst
P22734 rattus norv
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P30018 escherichia
Q54155 shigella fl
Q9rry7 deinococcus
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ALIGNMENTS

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Delcher A., Utterback T., Weidman J., Khouri H., Gill J., Mikula A., Bishal W.; "Whole genome comparison of Mycobacterium tuberculosis clinical and laboratory strains."; Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.	N.A. erculosis; STRAIN-CDC 1551 / Oshkosh; .D., Alland D., Eisen J.A., Carpenter L., White O., .DeBoy R., Dodson R., Gwinn M.L., Haft D., Hickey E., Wolson W. G. Hindeys M. D. Salbborg S.	Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Rutter S., Seeger K., Skelton S., Squares S., Squares R., Sulston J.E., Taylor K., Whitehead S., Barrell B.G.; "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence."; Nature 393:537-544(1998).	H37Rv; 30; J., Garnier T., Churcher C., Harris S., Barry C.E. III, Tekaia F., , Chillingworth T., Connor R.,	arto A 24 tro	[1] [1] [1] [1] [1] SEQUENCE FROM N.A. SPECIES-M.tuberculosis; STRAIN-H37Rv; SPECIES-M.tuberculosis; STRAIN-H37Rv; MEDLINE-95204931; PubMed-7897219; Andersen P., Andersen A.B., Sorensen A.L., Nagai S.; Andersen P., Italian in the control of the c	_MYCTU STANDARD; PRT; 94 AA. ES56_MYCTU STANDARD; PRT; 94 AA. O57165; O84901; 30-MAY-2000 (Rel. 39, Created) 30-MAY-2000 (Rel. 39, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update) 6 kDa early secretory antigenic target (ESAT-6). ESAT6 OR RV3875 OR MT3989 OR MTV027.10. Mycobacterium tuberculosis, and Mycobacterium tuberculosis, and Mycobacterium tuberculosis, Actinobacteria; Actinobacteria; Actinobacteria; Actinobacteria; Actinobacteria; Actinobacteriace; Mycobacteriace; Mycobacterium tuberculosis.

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[7]
                                        Rhizobium meliloti (Sinorhizobium meliloti).
Plasmid pSymA (megaplasmid 1).
Bacteria; Proteobacteria; alpha subdivision; Rhizobiaceae
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-i- FUNCTION: NOT KNOWN. ELICITS HIGH LEVEL OF EFFECTOR CELLS DURING THE FIRST PHASE OF A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SPECIES=M.tuberculosis; STRAIN=H37Rv; MEDLINE=99061212; PubMed=9846755; Berthet F.-X., Rasmussen P.B., Rosenk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-96200095; PubMed-8631702;
Mahairas G.G., Sabo P.J., Hickey M.J., Sing
"Molecular analysis of genetic differences
BCG and virulent M. bovis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SPECIES-M.tuberculosis;
Singh B., Siddiqui Z., Singh S., Sharma P.;
"ESAT-6 gene of a clinical isolate of Mycob
India.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TIGR;
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SEQUENCE FROM N.A.
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1 TEQQWNFAGIEAAA 1
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                        Sinorhizobium
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nces between
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Barnett M.J., Fisher R.F., Jones T., Komp C., Abola A.P.,
Barloy-Hubler F., Bowser L., Capela D., Gallbert F., Gouzy J.,
Gurjal M., Hong A., Huizar L., Hyman R.W., Kahn D., Kahn M.L.,
Kalman S., Keating D.H., Palm C., Peck M.C., Surzycki R., Wells D.H.
Yeh K.-C., Davis R.W., Federspiel N.A., Long S.R.;
"Nucleotide sequence and predicted functions of the entire
Sinorhizobium meliloti pSymA megaplasmid.";
Proc. Natl. Acad. Sci. U.S.A. 98:9883-9888(2001).
-1- FUNCTION: NOT KNOWN; DOES NOT SEEM TO PARTICIPATE IN NOD FACTOR
SYNTHESIS: BUT REQUIRED FOR NODULATION ON SOME SPECIFIC MEDICAGO
SPECIES SUCH AS M.LITTORALIS.
                                                                EMBL;
                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a clotween the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and formedified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    comprises nodL, noeA and noeB, three host-range genes specifically required for the nodulation of particular Medicago species."; Mol. Microbiol. 17:687-699(1995).
                   InterPro;
Plasmid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ardourel M., Lortet G., Maillet F., Prome J.-C., Rosenberg C.;
"In Rhizobium meliloti, the operon
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SEQUENCE FROM N.A.
STRAIN=RCR2011 / SU47;
MEDLINE-96111489; Pubm
                                                    EMBL;
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                                                                    U26430; AAC44091.1;
                                                  AE007232;
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o; IPR000051;
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E 476 AA; 5
; AAK65074.1; -. 00051; SAM_bind. ation; Complete AA; 53673 MW;
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et G., Maillet F.,
proteome.
EF0A4009B5F4965E CRC64;
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                                                                                                                      (See http://www.isb-sib.
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Matches Best Query Match

Local

Similarity 7; Conserv

Conservative

4.

Pred. No. 2.6, 4; Mismatches Score 45;

DB

1:

Length 476;

Indels

0

Gaps

0

57.0%; 63.6%;

SEQUENCE

RESULT 3
G6PI_CAUCR O9ABK5;
15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
Glucose-6-phosphate isomerase (EC 5.3.1.9) (GPI)
Glucose-6-phosphohexose isomerase) (PHI). PGI OR CC0222 Caulobacter crescentus. Q9ABK5; CAUCR STANDARD PRT; 539 ₿ (Phosphoglucose

Bacteria;

Proteobacteria;

alpha

subdivision;

Caulobacter

group,

SEQUENCE FROM N.A.

STRAIN-ATCC 19089 / CB15;

MEDLINE-21173698; PubMed-11259647;

MEDLINE-21173698; PubMed-11259647;

Nierman W.C., Feldblyum T.V., Laub M.T., Paulsen I.T., Nelson Eisen J., Heidelberg J.F., Alley M.R.K., Ohta N., Maddock J.R. Potocka I., Nelson W.C., Newton A., Stephens C., Phadke N.D., Deotocka I., Nelson W.C., Newton A.S., Gwinn M.L., Haft D.H., Kolonay J.F., Smit J., Craven M.B., Khouri H., Shetty J., Berr Utterback T., Tran K., Wolf A., Vamathevan J., Ermolaeva M., W NCBI_TaxID-155892; Berry Χ.E., Ely B.,

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Pfam; PF00342; PGI; 1.
PRINTS; PR00662; G6PISOMERASE.
PROSITE; PS00765; P_GLUCOSE_ISOMERASE_1; 1.
PROSITE; PS00174; P_GLUCOSE_ISOMERASE_2; 1.
Isomerase; Gluconeogenesis; Glycolysis; Complete Isomerase; Gluconeogenesis; Glycolysis; Complete By SIMILARITY.

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PARTY 380 SOR BY SIMILARITY.
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between
the Euro
SEQUENCE FROM N.A.
STRAIN-K12 / MG1655;
MEDLINE-97426617; PubMed-9278503;
Blattner F.R., Plunkett G. III, B
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Bardwell J.C.A.,
Beckwith J.;
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                                                                                                                                               MEDLINE-93348217; PubMed-7688471;
Missiakas D., Georgopoulos C., Raina
"Identification and characterization
dsbB, whose product is involved in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Escherichia coli, and Escherichia coli 0157:H7.
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Escherichia.
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oc. Natl. Acad. Sci. U.
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c. Natl. Acad. Sci. U.S.A. 98:4136-4141(2001)
CATALYTIC ACTIVITY: D-glucose 6-phosphate =
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SIMILARITY: BELONGS TO THE GPI FAMILY.
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                                                                                                        90:7084-7088(1993).
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Bloch C.A.,
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DNA Res.
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MEDLINE=21156231; PubMed=11258796;

Hayashi T., Makino K., Ohnishi M., Kurokawa K.,

Han C.-G., Ohtsubo E., Nakayama K., Murata T.,

Iida T., Takami H., Honda T., Sasakawa C., Ogas

Kuhara S., Shiba T., Hattori M., Shinagawa H.;

Tomplete genome sequence of enterohemorrhagic

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Kobayashi T., Ito K.;
"Respiratory chain strongly oxid
Escherichia coli disulfide bond
EMBO J. 18:1192-1198(1999).
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MEDLINE-21074935; PubMed-11206551;

Perna N.T., Plunkett G. III, Burland V., Mau B., Glasner J.D.,

Rose D.J., Mayhew G.F., Evans P.S., Gregor J., Kirkpatrick H.A.

Posfai G., Hackett J., Klink S., Boutin A., Shao Y., Miller L.,

Grotbeck E.J., Davis N.W., Lim A., Dimalanta E.T., Potamousis K

Apodaca J., Anantharaman T.S., Lin J., Yen G., Schwartz D.C.,

Welch R.A., Blattner F.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-97061202; PubMed-8905232;
Oshima T., Aiba H., Baba T., Fujita K., Hayashi K., Honjo A.,
Ikemoto K., Inada T., Itoh T., Kajihara M., Kanai K., Kashimoto K.
Kimura S., Kitagawa M., Makino K., Masuda S., Miki T., Mizobuchi F
Mori H., Motomura K., Nakamura Y., Nashimoto H., Nishio Y., Saito
Sampel G., Seki Y., Tagami H., Takemoto K., Wada C., Yamamoto Y.,
This SWISS-PROT entry is copyright. It is produced between the Swiss Institute of Bioinformatics and the European Bioinformatics Institute. There are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "A 718-kb DNA sequence of the corresponding to the 12.7-28.0 DNA Res. 3:137-155(1996).
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                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=92283803;
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Yano M., Horiuchi T.;
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ence 277:1453-1474(1997).
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              This SWISS-PROT entry is copyright. It is produced through a celebrate the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and for
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-I- FUNCTION: REQUIRED FO
PERIPLASMIC PROTEINS
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01-NOV-1997 (Rel. 35, Last sequence update)
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                                  EMBL;
TIGR;
                                                             use by non-profit institutions as long a modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
      InterPro; IPR004843; M-ppestrase.
InterPro; IPR004844; S/T_phosphtse.
Pfam; PF00149; Metallophos; 1.
                                                                                                                                                        "Genome sequence of the rad
radiodurans R1.";
Science 286:1571-1577(1999)
                                                                                                                                                                                          white O., Eisen J.A., Heidelberg J.F., Hickey E.K., Peterson J.D., Dodson R.J., Haft D.H., Gwinn M.L., Nelson W.C., Richardson D.L., Moffat K.S., Qin H., Jiang L., Pamphile W., Crosby M., Shen M., Vamathevan J.J., Lam P., McDonald L., Utterback T., Zalewski C., Makarova K.S., Aravind L., Daly M.J., Minton K.W., Fleischmann R.D. Ketchum K.A., Nelson K.E., Salzberg S., Smith H.O., Venter J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hypothetical DR2345.
                                                                                                                                                                                                                                                                                                                                                                                           DEIRA
                                                                                                  the European Bioinformatics Institute.
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NCBI_TaxID=1299;
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REDOX-ACTIVE (BY SIMILARITY).
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                                                                                            EMBL; AF031920; AAC14021.1;
EMBL; AF036364; AAC04368.1;
EMBL; AJ000534; CAA04167.1;
                                                                                                                                                                               use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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J. Biol. Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Ettinger A.J., Feng G., Sanes J.R.;
"Epsilon-Sarcoglycan, a broadly expressed mutated in limb-girdle muscular dystrophy J. Biol. Chem. 272:32534-32538(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                 the European Bioinformatics Institute
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"BBS Lett. 422:27-32(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=98133310; PubMed=9475163;
McNally E.M., Ly C.T., Kunkel L.N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Heart;
Nigro V.;
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SIMILARITY: BELONGS TO THE SARCOGLYCAN ALPHA/EPSILON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Inger A.J., Feng G., Sanes J.R.;
1801. Chem. 273:19922-19922(1998).
FUNCTION: COMPONENT OF THE SARCOGLYCAN COMPLEX, A SUBCOMPLEX
THE DYSTROPHIN-GLYCOPROTEIN COMPLEX WHICH FORMS A LINK BETWEE
F-ACTIN CYTOSKELETON AND THE EXTRACELLULAR MATRIX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                ALTERNATIVE PRODUCTS: 2 ISOFORMS;
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SEQUENCE FROM N.A.

STRAIN-0157:H7 / EDL933 / ATCC 700927;

MEDLINE-21074935; PubMed-11206551;

MEDLINE-21074935; PubMed-11206551;

Perna N.T. Plunkett G. III, Burland V., Mau B., Glasner J.D.,

Perna N.T., Plunkett G., Evans P.S., Gregor J., Kirkpatrick H.A.,

Rose D.J., Mayhew G.F., Evans P.S., Gregor J., Kirkpatrick H.A.,

Posfai G., Hackett J., Klink S., Boutin A., Shao Y., Miller L.,

Grotbeck E.J., Davis N.W., Lim A., Dimalanta E.T., Potamousis K.,

Apodaca J., Anantharaman T.S., Lin J., Yen G., Schwartz D.C.,

Welch R.A., Blattner F.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  p23891;
01-NOV-1991 (Rel. 20, Created)
01-NOV-1991 (Rel. 20, Last sequence up
15-JUN-2002 (Rel. 41, Last annotation
Probable cadaverine/lysine antiporter.
CADB OR B4132 OR 25735 OR ECSS114.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=92105022; pubMed=1370290; Watson N., Dunyak D.S., Rosey E.L., Slonczewski J.L., Olson E.R.; Watson N., Dunyak D.S., Rosey E.L., Slonczewski J.L., Olson E.R.; "Identification of elements involved in transcriptional regulation the Escherichia coli cad operon by external pH."; J. Bacteriol. 174:530-540(1992).
SEQUENCE FROM N.A.
STRAIN-0157:H7 / RIMD 0509952;
MEDLINE-21156231; PubMed-11258796;
Hayashi T., Makino K., Ohnishi M.,
                                                                                                                                                                                                                                                                                                                                                                                           "Analysis of the Escherichia coli genome region from 92.8 through 100 minutes."; Nucleic Acids Res. 23:2105-2119(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Nucleotide sequence of the Escherichia coli cad neutralization of low extracellular pH.";
J. Bacteriol. 174:2659-2669(1992).
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Burland V.D., Plunkett G. III, So
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                                                                                                                  sequence of enterohaemorrhagic
109:529-533(2001).
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POTENTIAL.
CYTOPLASMIC (POTENTIAL).
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MISSING (IN ISOFORM SGCE-2).
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EMBL; W76411; AAA23535.1; --
EMBL; U14003; AAA97032.1; --
EMBL; AE000486; AAC77093.1;
EMBL; AE005647; AAG59332.1;
EMBL; AE005646; BAB38537.1;
EMBL; AE002566; BAB386537.1;
EMBL; AE002566; BAB3
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15-DEC-1998
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"Complete genome sequence of enterohemorrhagic Escherichia c
0157:H7 and genomic comparison with a laboratory strain K-12
DNA Res. 8:11-22(2001).

DNA Res. 11-22(2001).

-I- FUNCTION: PROBABLE CADAVERINE/LYSINE ANTIPORTER OR PART
-I- SUBCELLULAR LOCATION: Integral membrane protein. Inner n
-I- INDUCTION: AT LOW PH IN THE PRESENCE OF LYSINE AND ACHII
MAXIMAL LEVEL UNDER ANAEROBIC CONDITIONS.

-I- SIMILARITY: BELONGS TO THE ARCD/CADB/GERAB/LYSI FAMILY
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15-DEC-1998 (Rel. 37, Last annotation update)
15-DEC-1998 (Rel. 37, Last annotation update)
Hydroxymethylglutaryl-CoA synthase, mitochondrial precursor
(EC 4.1.3.5) (HMG-CoA synthase) (3-hydroxy-3-methylglutaryl
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InterPro: IPR004841; Permease.
InterPro: IPR004754; R/O_antiport.
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RESULT 10
DREB_CHICK
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Best Local :
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Multigene
TRANSIT
CHAIN
ACT_SITE
MEDLINE-89089137; PubMed-3208110;
Kojima N., Kato Y., Shirao T., Obata K.;
"Nucleotide sequences of two embryonic drebrins, developmentally regulated brain proteins, and developmental change in their mRNAs.";
Brain Res. 464:207-215(1988).
                                                                                                                                                                                                  DREB_CHICK STANDARD; PRT; 6
P18302; Q91358; Q91359;
01-NOV-1990 (Rel. 16, Created)
01-NOV-1997 (Rel. 35, Last sequence up
15-JUN-2002 (Rel. 41, Last annotation
Drebrin (Developmentally regulated bra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entities
or send a
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                                                                                 SEQUENCE FROM TISSUE-Brain;
                                                                                                                                                                                          DBN1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Adams S.H., Alho C.S., Asins G., Hegardt F.G., Marrero P.F.; "Gene expression of mitochondrial 3-hydroxy-3-methylglutaryl-Coasynthase in a poorly ketogenic mammal: effect of starvation duri
                                                                                                                     NCBI_TaxID=9031;
                                                                                                                                      Gallus
                                                                                                                                                 Archosauria; Aves;
                                                                                                                                                               Eukaryota;
                                                                                                                                                                          Gallus gallus (Chicken).
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; U90884; AAC48727.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      use by non-profit institutions as long modified and this statement is not removed.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=97293201;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-Liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sus scrofa (Pig).
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        thase in a poorly ketogenic mammal: effect of starvation during incommutal period of the piglet."; neonatal period of the piglet."; chem. J. 324:65-73(1997).
FUNCTION: THIS ENZYME CONDENSES ACETYL-COA WITH ACETOACETYL-COA TO FORM HMG-COA, WHICH IS THE SUBSTRATE FOR HMG-COA REDUCTASE. CATALYTIC ACTIVITY: (S) 3-hydroxy-3-methylglutaryl-COA + COA - acetyl-COA + H(2)O + acetoacetyl-COA.

BATHWAY: RESPONSIBLE, TOGETHER WITH HMG-COA LYASE FOR KETONE PATHWAY: RESPONSIBLE, TOGETHER WITH HMG-COA LYASE FOR KETONE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY: BELONGS TO THE HMG-COA SYNTHASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBCELLULAR LOCATION: Mitochondrial
                                                                                                                                                                                                                                                                                                                                          278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PF01154;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PF01154; HMG_COA_SYNT; 1.
E; PS01226; HMG_COA_SYNTHASE; 1.
Cholesterol biosynthesis; Mitochondrion; Transit
                                                                                                                                                                                                                                                                                                                                                                  ω
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                                                                                                                                                                                                                                                                                                                                                                                           Similarity 7; Conserv
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166
508
                                                                                                                                                              Metazoa;
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508
166
56933 ,
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                                                                                            (ISOFORMS
                                                                                                                                                 Neognathae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Suina; Suidae; Sus.
                                                                                                                                                              Chordata;
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70.08;
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Pred. No.
                                                                                             HYDROXYMETHYLGLUTARYL-COA
POTENTIAL.
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                                                                                                                                                Craniata; Vertebrata; Eutel; Galliformes; Phasianidae;
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                                                                                                                                                              Euteleostomi;
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Matches . 8
SPCQ_HUMAN STANDARD; PRT; 2564 AA. Q9H254; Q9HCDD; Q9H368; Q9H1K7; Q9H1K8; Q9H1K9; 15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
Spectrin beta chain, brain 3 (Spectrin, non-ery (Beta-IV spectrin).
                                                                                                                                                                                                                                                                                                                                                                                                             VARSPLIC CONFLICT
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EMBL;
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                                                                                                                                                          HUMAN
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DOMAIN
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DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               drebrin gene.";
Brain Res. Mol. Brain Res. 19:101-114(1993).
-I- FUNCTION: DREBRINS MIGHT PLAY SOME ROLE IN CELL
-EXYENSION OF NEURONAL PROCESSES AND PLASTICITY O
RESPECTIVELY. BINDS F-ACTIN.
                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF00241; cofilin_ADF; SMART; SM00102; ADF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. (ISOFORM A),
MEDLINE-93368392; PubMed-8361332;
KOJIMA N., Shirao T., Obata K.;
"Molecular cloning of a developmentally
"Molecular cloning of a developmentally
chicken drebrin A and its expression by
                                                                                                                                                                                                                                                                                                                                                                                                                                                      VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Actin-binding;
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ALTERNATIVE PRODUCTS: 3 isoforms; A (shown are produced by alternative splicing.
TISSUE SPECIFICITY: BRAIN NEURONS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MISCELLANEOUS: DREBRINS ARE CLASSIFIED INTO TWO FORMS EMBRYONIC TYPE (E1 AND E2) AND ONE FORM OF THE ADULT TIME COURSE OF THEIR APPEARANCE ARE DIFFERENT FROM EACTHEIR STRUCTURES ARE CLOSELY RELATED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SWISS-PROT entry is copyright. It is produced through
sen the Swiss Institute of Bioinformatics and the EM
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8; Conserv
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0241; cofilin_ADF; 1.
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AAB28012.1;
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POLY-GLY.
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MISSING (IN RE-> EE (IN RE-
W; 8EF72CAF'
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Pred. No. 56;
0; Mismatches
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56;
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                                          non-erythroid beta chain
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                                                                                                                                                                                                                                                                                                                                                     Length 652;
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EACH OTHER.
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PROSITE; PROSITE; PROSITE; PROSITE;

ACTININ_1; ACTININ_2; CH; 2. PH_DOMAIN;

SMART; SM00033; CH; 2. SMART; SM00233; PH; 1. SMART; SM00150; SPEC; 16. PRINTS; PRO0683; SPECTRIZ InterPro; InterPro; InterPro;

o; IPR001589; Actbind_actnin.
o; IPR001715; Calponin-like.
o; IPR001849; PH.
o; IPR002017; Spectrin.
o; IPR001605; Spectrin_PH.

InterPro;
InterPro;

MIM;

606214;

Genew;

HGNC:14896;

SPTBN4

Pfam;

PF00169;

CH;

; PF00307; ; PF00435;

SPECTRINPH

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MEDLINE-21316449; PubMed-11294830;
Tse W.T., Tang J., Jin O., Korsgren C., John K.M., Kung Gwynn B., Peters L.L., Lux S.E.;
"A new spectrin, beta-IV, has a major truncated isoform associates with promyelocytic leukemia protein nuclear matrix."

J. Biol Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nagase T., Kikuno R., Nakayama M., nilvsum ..., "Prediction of the coding sequences of unidentified PXVIII. The complete sequences of 100 new cDNA clones code for large proteins in vitro.";
                                                                                                                                                                                                                                                    EMBL; AF311855; AAG42473.1;
EMBL; AF082075; AAG38874.1;
EMBL; AX004226; AAF93171.1;
EMBL; AX004226; AAF93172.1;
EMBL; AY004227; AAF93173.1;
                                                                                                                                                                                                                                                                                                                               use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and foentities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "BetaIV spectrin, a new spectrin localized at axon initial segments and nodes of ranvier in the central and peripheral nervous system."
J. Cell Biol. 151:985-1002(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. (ISOFORMS 1 TO 4).

MEDLINE=2053976; PubMed=1108001;

Berghs S., Aggujaro D., Dirkx R. Jr., Maksimova E., Stabach

Hermel J.-M., Zhang J.-P., Philbrick W., Slepnev V., Ort T.,

Solimena M.,
                                                                                                                                                                                                                              HSSP;
                                                                                                                                                                                                                                         EMBL;
                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict
                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SIMILARITY: BELONGS TO THE SPECTRIN FAMILY.
-!- SIMILARITY: CONTAINS 2 CALPONIN-HOMOLOGY ((
-!- SIMILARITY: CONTAINS 1 PH DOMAIN REPEATS.
-!- SIMILARITY: CONTAINS 18 SPECTRIN REPEATS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     code for large proteins DNA Res. 7:273-281(2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 386-2382 FROM N.A. (ISOFORM
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Q01082; 1E
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brain
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Repeat; Actin-binding; Capping protein;

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RESULT MT04 LSY ID AC PT                                                                                                                                                                                                                                                                                                                                                                                                              밁
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Matches 6
                                        SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE-97061201; PubMed-8905231;
MEDLINE-97061201; PubMed-8905231;
Meneko T., Sato S., Kotani H., Tanaka A., Asamizu E., Nakamura Y.,
Miyajima N., Hirosawa M., Sugiura M., Sasamoto S., Kimura T.,
Miyajima N., Hirosawa M., Sugiura M., Sasamoto S., Kimura T.,
Miyajima N., Hirosawa M., Muraki A., Nakazaki N., Naruo K., Okumura
Hosouchi T., Matsuno A., Muraki A., Nakazaki N., Vamada M., Yasuda M.,
Tanana S., Yasuda M., Yasuda M.,
                                                                                                                                                                                                                                                           MT04_SYNY3
P73161;
P6-OCT-2001
16-OCT-2001
15-JUN-2002
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"Sequence analysis of the Synechocystis sp. strain I entire genome and assignments."
                                                                                                                                                                                               Synechocystis sp. (strain Bacteria; (yanobacteria; )
                                                                                                                                                                                                                                          16-007-2001 (Rel. 40, Created)
16-007-2001 (Rel. 40, Last sequ
15-JUN-2002 (Rel. 41, Last anno
Hypothetical methyltransferase
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                                                                                                                                                                                NCBI_TaxID=1148;
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6; Conservative
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s of the genome of the ustrain PCC6803. II. Sequestions assignment of potential
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Last annotation u
ansferase sll1300
                                                                                                                                                                                               chroococcales;
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MISSING (IN REF. 2).
L -> S (IN REF. 2).
E -> K (IN REF. 2).
E -> K (IN REF. 2).
G -> S (IN REF. 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 38; DB
Pred. No. 2.2e
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2;
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NGENQLARQOMNGKLHOQLEICH -> CLIIHPALLHPPWE
PPYLDRSSS (IN ISOFORM 2).

MISSING (IN ISOFORM 2).

MISSING (IN ISOFORM 2).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        38; DB 1;
No. 2.2e+02;
                the unicellular cyanobacterium 
I. Sequence determination of the
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LRQGNIYGEQAQEAVTRLLEK -> MPHYPSCS
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                                       vitro.
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P22734;
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or send a
                                                                                                                      methyltransferase.";
Gene 93:241-247(1990).
                                                                                                                                                                                                                                                                                                                                                                                                 01-AUG-1991 (Rel. 19, Created)
01-MAY-1992 (Rel. 22, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Catechol O-methyltransferase, membrane-bound form
(MB-COMT) [Contains: Catechol O-methyltransferase,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF02390; Methyltransf_4; 1.
TIGRFAMS; TIGR00091; Cons_hypoth91; 1.
Hypothetical protein; Transferase; Methyltransferase;
Complete proteome.
SEQUENCE 211 AA; 24416 MW; 71A13BD64B1FC898 CRC64
                                                                                                                                                                                                                           Tenhunen J., Ulmanen I.;
"Production of rat soluble and membrane-bound camethyltransferase forms from bifunctional mRNAs.
Biochem. J. 296:595-600(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bidinformatics and the EMBL outstation the European Bidinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                          Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; D90904; BAA17187.1;
InterPro; IPR004395; Cons.
InterPro; IPR003358; Methy
InterPro; IPR000051; SAM_F
                                                                                          SEQUENCE OF 1-10 FROM N.A., AND CHARACTERIZATION MEDLINE=92111472; PubMed=1765063;
                                                                                                                                                                                Salminen M., Lundstroem
                                                                                                                                                                                             MEDLINE=91033034; PubMed=2227437;
                                                                                                                                                                                                         SEQUENCE OF 11-264 FROM N
                                                                                                                                                                                                                                                                                            TISSUE-Liver;
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                                                                                                                                                                      Ulmanen
                                                                                                                                                                                                                                                                              MEDLINE=94107221; PubMed=8280056;
                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10116;
                                                                                                                                                   "Molecular cloning and
                                                                                                                                                                                                                                                                                                                                                                                         (S-COMT)].
           -RAY CRYSTALLOGRAPHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: PROBABLE METHYLTRANSFERASE. SIMILARITY: BELONGS TO THE UPF0155 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Res. 3:109-136(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         52
                                    Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity 50.7; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                          esis of rat and membrane-bound
PubMed=81:
                                   202:1013-1020(1991)
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                                                                                                                                                          characterization
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 ANGSTROMS)
L27373;
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                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
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                                                           form
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                                                          catechol O-methyltransferase into microsomal membranes in
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             SOLUBLE FORM
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; Murinae; Rattus
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RESULT 14
G3P_ESCBL
ID G3P_ESCBL
AC P24749;
DT 01-MAR-199;
DT 01-MAR-199;
DT 15-JUN-200;
DE Glyceraldel
DE (Fragment)
GN GAP.
OS Escherichia
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Best Local S
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01-MAR-1992 (Rel. 21, Last
15-JUN-2002 (Rel. 41, Last
Glyceraldehyde 3-phosphate
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ACT_SITE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   PDB; 1VID; 11-JUL-96.
InterPro; IPR002935; Methyltransf_3.
InterPro; IPR000051; SAM_bind.
Pfam; PF01596; Methyltransf_3; 1.
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  Escherichia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nature 368:354-358(1994)
                         Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                           ransterase; Methyltransferase; Neurotransmitter degradation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oetween
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NL; Z12651; CAA78276.1;

KRO754; AAA40882.1; A

NL; KRO753; AAA40881.1; A

L; JQ0787; JQ0787;

L; S22090; S22090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          alternative initiation.

PTM: The N-terminus is blocked.

SIMILARITY: TO OTHER MAMMALIAN CATECHOL-O-METHYLTRANSFERASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBCELLULAR LOCATION: Cytoplasmic (isoform membrane protein (isoform MB-COMT).
ALTERNATIVE PRODUCTS: 2 isoforms; a membran
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                adenosyl-L-homocysteine +
COFACTOR: MAGNESIUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATALYTIC ACTIVITY: S-adenosyl-L-methionine + catechol =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALTERNATIVE PRODUCTS: 2 isoforms; a membrane-bound (shown here) and a soluble form/S-COMT; are produce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ISOPROTERENOL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NEUROACTIVE DRUGS, LIKE L-DOPA, ALPHA-METHYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INACTIVATION, OF CATECHOLAMINE NEUROTRANSMITTERS AND CATECHOLHORMONES. ALSO SHORTENS THE BIOLOGICAL HALF-LIVES OF CERTAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SWISS-PROT entry is copyright. It is produced through sen the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    al Structure of Calculution, 368:354-358(1994).

The O-METHYLATION, CAPALYZES THE O-METHYLATION, NEUROTR
                                                                                                                                                                                                          similarity 50. 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and this statement is not removed. Usage by and for commercial requires a license agreement (See http://www.isb-sib.ch/announce/an email to license@isb-sib.ch).
                                                                                                                                                                                  MTEQQWNFAGIE
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242
184
212
213
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                                                                                                                                                                                                                                                                                                                                                                                                                      initiation;
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                                                                                                                                                                                                                     46.8%;
                                                                        Created)
                                  Last sequence update)
Last annotation update)
phate dehydrogenase (EC
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                                                                                                                                                                                                                                                                                                                                                                                                                               Transmembrane;
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                                                                                                                                                                                                                     Score 37; Pred. No.
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MAGNESIUM.
MAGNESIUM.
E535DFF49C062854 CRC64;
                                                                                                                                                                                                                                                                                                                               FOR SOLUBLE ISOFORM.
SIGNAL-ANCHOR (TYPE-II
(POTENTIAL).
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CATECHOL-O-METHYLTRANSFERASE,
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EMBL; M63359;
EMBL; M63360;
HSSP; P06977;
Sgouros J., Peat N., Hayles J., Baker S., Basham D., Bowman Brooks K., Brown D., Brown S., Chillingworth T., Churcher C. Collins M., Connor R., Cronin A., Davis P., Feltwell T., Fra Gentles S., Goble A., Hamlin N., Harris D.
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ACT_SITE
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                 YD59_SCHPO STANDARD; PRT; 335 AA (210312; Q9UUL8; O1-CCT-1996 (Rel. 34, Created) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation updat Hypothetical protein C6C3.09 in chromosome SPAC6C3.09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Molecular and evolutionary relationships among enteric bacteria.";
J. Gen. Microbiol. 137:1911-1921(1991).
-!- CATALYTIC ACTIVITY: Dellyceraldehyde 3-phosphate + phosphate +
NAD(+) = 3-phospho-0-glyceroyl phosphate + NADH.
-!- PATHWAY: Second phase of glycolysis; first step.
-!- SUBUNIT: HOMOTETRAMER.
-!- SUBCELLIUIAR LOCATION: Cytoplasmic.
-!- SUBCELLIUR LOCATION: Cytoplasmic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCHPO
                                                                                         MEDLINE=21848401; PubMed=11859360; Wood V., Gwilliam R., Rajandream M
                                                                                                                                                                                                                                                   Eukaryota; Fungi; Ascomycota; Schizosaccharomycete Schizosaccharomycetales; Schizosaccharomycetaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Glycolysis;
NON_TER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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STRAIN-ATCC 29907, ATCC 33429, au
MEDLINE-92065252; PubMed-1955870
                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                          Schizosaccharomyces.
NCBI_TaxID=4896;
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RA Holroyd S., Hornsby T., Howarth S., Huckle E.J., Hunt S., Jagels K.,
James K., Jones M., Leather S., McDonald S., McLean J.,
RA Mooney P., Moule S., Mungall K., Murphy L., Niblett D., Odell C.,
RA Mooney P., Moule S., Mungall K., Murphy L., Niblett D., Odell C.,
RA Rutherford K., Rutter S., Saunders D., Seeger K., Sharp S.,
RA Rutherford K., Rutter S., Squares R., Squares S., Stevens K.,
RA Haylor K., Taylor R.G., Tivey A., Walsh S.V., Warren T., Whitehead S.,
RA Woodward J., Volckaert G., Aert R., Robben J., Grymonprez B.,
RA Woodward J., Volckaert E., Rleger M., Schaeffer M., Mueller-Auer S.,
RA Weltjens I., Vanstreels E., Rleger M., Schaeffer M., Mueller-Auer S.,
RA Gabel C., Fuchs M., Fritzc C., Holzer E., Moestl D., Hilbert H.,
RA Borzym K., Langer I., Beck A., Lehrach H., Reinhardt R., Pohl T.M.,
RA Eger P., Zimmermann W., Wedler H., Wambutt R., Purnelle B.,
Goffeau A., Cadieu E., Dreano S., Gloux S., Lelaure V., Mottier S.,
RA Galibert F., Aves S.J., Xiang Z., Hunt C., Moore K., Hurst S.M.,
RA Galibert M., Galilardin C., Tallada V.A., Garzon A., Thode G.,
RA Lucas M., Rochet M., Galilardin C., Tallada V.A., Garzon A., Thode G.,
RA Dominguez A., Revuelta J.L., Moreno S., Armstrong J., Forsburg S.L.,
RA Shpakowski G.V., Ussery D., Barrell B.G., Nurse P.;
"The genome sequence of Schizosaccharomyces pombe.";
RT "The genome sequence of Schizosaccharomyces pombe.";
                                                                                                                                                                                                                                                                                                                                   EMBL; Z69731; CAB40281.1; -. Hypothetical protein. SEQUENCE 335 AA; 37948 MW;
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ALIGNMENTS

Minimum DB Maximum DB

Sequence:

Run

on:

Database :

C:Species: Mycobacterium tuberculosis
C:Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 22-Oct-1999
C:Accession: A70803; S49174
R:Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.;
R:Cole, S.T.; Brosch, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; HC
Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S.
Nature 393, 537-544, 1998
A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G.
A;Title: Deciphering the biology of Mycobacterium tuberculosis from the complet A;Reference number: A70500; MUID:98295987; PMID:9634230
A;Accession: A70803
A;Status: nucleic acid sequence not shown; translation not shown C;Accession: S71360; S71358
R;Ardourel, M.; Lortet, G.; Maillet, F.; Roche, submitted to the EMBL Data Library, May 1995
A;Reference number: S71360
A;Accession: S71360 A;Molecule type: DNA
A;Residues: 1-95 <COL2
A;Cross-references: GB:AL022120; GB:AL123456; NID:g3261558; PIDN:CAA17967.1; PID:e126
A;Experimental source: strain H37Rv
R;Sourcesen, A.L.; Nagai, S.; Houen, G.; Andersen, P.; Andersen, A.B.
submitted to the EMBL Data Library, June 1994
A;Reference number: S49174
A;Accession: S49174 A;Molecule type: DNA
A;Residues: 1-476 <ARD>
A;Cross-references: EMBL:U26430; NID:g1326068; PIDN:AAC44091.1; PID:g1326070
A;Experimental source: strain RCR2011 noeA protein - Rhizobium meliloti C;Species: Rhizobium meliloti C;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 04-Mar-2000 A; Molecule type: DNA
A; Residues: 1-13,'R',15-22,'S',24-95 <SOE>
A; Cross-references: EMBL:X79562; NID:g531708 early secretory antigen target esat6 - Mycobacterium tuberculosis (strain H37RV) l Similarity 15; Conserv MTEQQWNFAGIEAAA 15 MTEQOWNFAGIEAAA Conservative 100.0%; 0; Score 79; DB 2; Pred. No. 1.3e-06; ; Mismatches 0; P.; 0; Truchet, Length 95 Indels G.; Prome, J.C.; Rosenbe 0 Gaps complete .; Gordon Holroyd, 0

P.; Truchet, G.; Prome,

J.C.;

Rosenberg

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frnE protein VCA0178 [imported] - Vibrio cholerae (strain N16961 serogroup (
C;Species: Vibrio cholerae
C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 02-Feb-2001
C;Accession: A82491
                                                                                                        RESULT 4
A82491
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R; Gallbert, F; Finan, T.M.; Long, S.R.; Puhler, A.; Abola, P.;
Pela, D.; Chain, P.; Cowie, A.; Davis, R.W.; Dreano, S.; Federsp
L; Hyman, R.W.; Jones, T.
Science 293, 668-672, 2001
A; Authors: Kahn, D.; Kahn, M.L.; Kalman, S.; Keating, D.H.; Kiss
hebault, P.; Vandenbol, M.; Vorholter, F.J.; Weidner, S.; Wells,
A;Title: The composite genome of the legume symbiont Sinorhizobi
A; Reference number: A96039; MUID:21368234; PMID:11474104
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C; Superfamily:
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; Kalman, S.; Keating, D.H.; Palm, C.; Peck, M.C.; Surzycki, R.;
Proc. Natl. Acad. Sci. U.S.A. 98, 9883-9888, 2001
A;Title: Nucleotide sequence and predicted functions of the entire
A;Reference number: A95262; MUID:21396509; PMID:11481432
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A;Status: nucleic acid sequence not shown
                 R;Heidelberg,
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A; Residues: 1-476 < KUR>
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C;Date: 24-Aug-2001 #sequence_revision 24-Aug-2001
C;Accession: H95313
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A; Residues: 304-339 <ARW>
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Mol. Microbiol.
                                   Accession: A82491
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Best Local
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17, 687-699,
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 Eisen, J.A.;
aeva, M.D.; V
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63.6%;
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 Nelson, W.C.;
mathevan, J.;
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Pred. No.
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Clayton, F
Bass, S.;
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, S.; Wells, D.H.; Wong,
Sinorhizobium meliloti.
 R.A.;
; Qin,
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H.; Dragoi,
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N.A.; Fisher, R.F.
; Dodson, R.J
I.; Sellers,
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A; Residues: 1-369 <STO>
A; Cross-references: GB:
                                                                                                                                                                 A; Title: Comparison of whole A; Reference number: A86491; A; Accession: E86554
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gasawara, N.; Yasunaga,
DNA Res. 8, 11-22, 2001
                                                                                 A; Experimental source:
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A; Residues: 1-247 <HAY>
A; Cross-references: GB:
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A; Residues: 1-217 <HEI>
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Fe-S oxidoreductase [imported] - Chlamydophila pneumoniae (strain J138) C;Species: Chlamydophila pneumoniae, Chlamydia pneumoniae C;Date: 02-Mar_2001 #sequence_revision 02-Mar-2001 #text_change 23-Mar-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: GB:BA000007; PIDN:BAB34999.1;
A;Experimental source: strain O157:H7, substrain R
C;Genetics:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: GB:AE004358; A;Experimental source: serogroup
                                                                                                                                                                                             Nucleic Acids Res. 28, 2311-2314,

    R.R.; Mekalanos, J.J.; Venter,
Nature 406, 477-483, 2000

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N.; Yasunaga, T.; Kuhara, S.;
                                                                                                                                                                                                            Hirakawa, H.; Kimoto, M.;
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hypothetical protein AF0390
                                                   GB:BA000008; NID:g8978883; PIDN:BAA98719.1; GSPDB:GN00142
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75.08;
                                                                                                                                                         e genome sequences of chlamydia
MUID:20330349; PMID:10871362
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Pred. No. 5.5;
0; Mismatches
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Shiba, T.; Hattori,
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RIMD 0509952
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Shinagawa,
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Score

42;

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A;Cross-references: C;Genetics:
A;Gene: CC0222
C;Superfamily: gluco:
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E87276
E87276
E87276
glucose-6-phosphate isomerase [imported] - Caulobacter crescentus
C;Species: Caulobacter crescentus
C;Date: 20-Apr-2001 #sequence_revision 20-Apr-2001 #text_change 10-May-2001
C;Accession: E87276
C;Neterman, W.C.; Feldblyum, T.V.; Paulsen, I.T.; Nelson, K.E.; Eisen, J.; Heidelberg,
R.; Laub, M.T.; DeBoy, R.T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kol
n, J.; Ermolaeva, M.; White, O.; Salzberg, S.L.; Shapiro, L.; Venter, J.C.; Fraser, C.
Proc. Natl. Acad. Sci. U.S.A. 98, 4136-4141, 2001
A;Title: Complete Genome Sequence of Caulobacter crescentus.
A;Reference number: A87249; MUID:21173698; PMID:11259647
A;Accession: E87276
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-539 <STO>
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C; Species: Chlamydophila pneumoniae, Chlamydia pneumoniae
C; Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 11-May-2000
C; Accession: G72065; F81599
R; Kalman, S.; Mitchell, W.; Marathe, R.; Lammel, C.; Fan, J.; Olinger, L.; Grimwood, Nature Genet. 21, 385-389, 1999
A; Title: Comparative genomes of Clamydia pneumoniae and C. trachomatis.
A; Reference number: A72000; MUID:99206606; PMID:10192388
A; Accession: G72069
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-369 < ARN>
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C; Genetics:
A; Gene: CPn0513; CP0240
C; Superfamily: hypothet
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A;Reference number: A81500; MUID:20150255; PMID:10684935
A;Accession: F81599
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-369 <REA>
A;Residues: 1-369 <REA>
A;Cross-references: GB:AE002184; GB:AE002161; NID:g7189156; PIDN:AAF38105.1; PID:g718916
A;Experimental source: strain AR39, HL cells
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N;Alternate names: fe-s oxidoreductase
C;Species: Chlamydophila pneumoniae, Chlamydia pneumoniae
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      Similarity 7; Conser
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                                                                                                                                     glucose-6-phosphate isomerase
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          Conservative
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                                                                                                                                                                                                                               GB:AE005673; NID:g13421349;
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                                 53.2%;
50.0%;
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   Score 42;
Pred. No.
5; Mismatc
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Pred. No.
          Mismatches
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22;
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                                                               Length 539;
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      0;
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A;Molecule type: DNA
A;Residues: 'MI',1-129,'LRRASVGFFRSGNAAVAARYFYRLPDCRSAGG',136-137,'PAV' <PIN>A;Cross-references: GB:M33655
A;Experimental source: Strain K-12, substrain W1333
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Title: Identification and characterization of the Escherichia A;Reference number: A48288; MUID:93348217; PMID:7688471 A;Accession: A48288 A;Status: preliminary A:Molecule trace
                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 'MI',1-176 < MIS>
A; Residues: 'MI',1-176 < MIS>
A; Cross-references: GB:L03721; NID:g398017; PIDN:AAA23711.1;
A; Pinner, E.; Padan, E.; Schuldiner, S.
J. Biol. Chem. 267, 11064-11068, 1992
A; Title: Cloning, sequencing, and expression of the nhab gene
A; Reference number: JC1108; MUID:92283803; PMID:1317851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:AE000216; GB:U00096; NID:g1787417; A;Experimental source: strain K-12, substrain MG1655 R;Missiakas, D; Georgopoulos, C: Raina, S. Proc. Natl. Acad. Sci. U.S.A. 90, 7084-7088, 1993
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.A.; Rose, D.J.; Mau, B.; Sh
Science 277, 1453-1462, 1997
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C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 01-Mar-2002
C;Accession: F64864; A48288; JC1109
C;Accession: F64864; A48288; JC1109
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C;Species: Escherichia coli
C;Date: 10-Sen-Yonn ...
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A;Title: Complete Genome Sequence of Caulobacter crescentus.
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C;Species: Caulobacter crescentus
C;Date: 20-Apr-2001 #sequence_revision 20-Apr-2001 #text_change 20-Apr-2001
C;Accession: E87706
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E87706
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A; Residues: 1-176 <BLAT>
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                                                                                                                                                         A; Status: translation not shown
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A; Residues: 1-723 <STO>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       48 LSKQAWDEAGLEAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MTEQQWNFAGIEAA
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Shao, Y.
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Pred.
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A; Dialus, Frances: DNA
A; Molecule type: DNA
A; Residues: 1-176 <STO>
A; Cross-references: GB: AE005174; NID: g12514882; PIDN: AAG56036.1; GSPDB: GN00145; UWGP: Z10
A; Cross-references: GB: AE005174; NID: g12514882; PIDN: AAG56036.1; GSPDB: GN00145; UWGP: Z10
A; Cross-references: GB: AE005174; NID: g12514882; PIDN: AAG56036.1; GSPDB: GN00145; UWGP: Z10
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H85696
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C;Species: Escherichia coli
C;Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 01-Mar-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Gene: dsbB; ro
A;Map position:
C;Function:
                                                                                                                                                                                               A; Title: Genome sequence of enterohemorrhagic Escherichia A; Reference number: A85480; MUID:21074935; PMID:11206551
                                                                                                                                                                                                                                                                                                     C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 03-Jun-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gasawara, N.; Yasunaga, T.; Kuhara
DNA Res: 8, 11-22, 2001
A;Title: Complete genome sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R; Hayash1,
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                                                                                                                                                            A; Status: preliminary
                                                                                                                                                                              A; Accession: H85696
                                                                                                                                                                                                                                 iller, L.; Grotbeck, E.J.
Nature 409, 529-533, 2001
                                                                                                                                                                                                                                                                                        C; Accession: H85696
                                                                                                                                                                                                                                                                                                                          hypothetical protein dsbB [imported] - Escherichia C;Species: Escherichia coli
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A; Residues: 1-176 <HAY>
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                                                                                                                                                                                                                                                                       R;Perna, N.T.; Plunkett III, G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: H90838
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Keywords: oxidoreductase; redox-active disulfide;
Query
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6; Conserv
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                                   protein-disulfide oxidoreductase
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Kasunaga, T.; Kuhara,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein-disulfide oxidoreductase
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60.0%;
51.9%;
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MUID:21156231; PMID:11258796
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Pred. No. 9
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Pred. No. 9
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41;
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Shiba, T.; Hattori,
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9.7;
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2.
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Length 176;
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Lanta, E.;
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M.; Shinagawa,
                                                                                                                                                                                                                                                    J.D.; Rose,
Potamousis,
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Apodaca,
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RESULT H82256

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hypothetical

protein

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[imported]

Vibrio

cholerae

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N16961

serogroup

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A; Residues: 1-471 <KLE>
A; Cross-references: GB: AE001000;
C; Superfamily: Methanobacterium
                                                                                                                                                                                                                                                                                                                                                                                                             A; Authors: Utterback, T.; Cotton, M.D.; Spriggs, T.; Artiach, P. Smith, H.O.; Woese, C.R.; Venter, J.C.
A; Title: The complete genome sequence of the hyperthermophilic, A; Reference number: A69250; MUID:98049343; PMID:9389475
A; Accession: E69435
В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Species: Archaeoglobus fulgidus
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 08-Oct-1999
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A; Residues: 1-445 <HEI>
A; Cross-references: GB: AE004116;
A; Experimental source: serogroup
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   probable cadaverine/lysine antiporter CadB VC0280 [imported] - Vibrio cholerae C;Species: Vibrio cholerae C;Date: 18-Aug-2000 #sequence revision 20-Aug-2000 #sequence revision 20-Aug-200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
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                                                                                                                                                                                                                                                                                                                                                                                  A; Status: preliminary; nucleic acid sequence not shown; translation not shown
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                                                                                                                                                                                                                                                                                                                                                    A; Molecule type:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Gene: VC0280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Title: DNA Sequence of both chromosomes of the cholera A; Reference number: A82035; MUID:20406833; PMID:10952301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Title: DNA Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein AF1486 - Archaeoglobus fulgidus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: D82342
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45
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8; Conserv
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                                                                                                                                                                                                                                                          GB:AE000782; NID:g2689323; PIDN:AAB89769.1; conserved hypothetical protein MTH943
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                                                                                                                              1,
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Pred. No.
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l; Mismatches
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26;
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                                                                                                                                                                                          Length 471;
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El Tor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gwinn, M.L.; Dod
H.; Dragoi, I.;
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I.; Sellers
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(irkness, E
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C;Species: Vibrio cholerae
C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 02-Feb-2001
C;Accession: H8256
R;Heidelberg, J.F.; Eisen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, R.J.;
chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H.; Dragoi, I.; Sellers, F
1, R.R.; Mekalanos, J.J.; Venter, J.C.; Fraser, C.M.
Nature 406, 477-483, 2000
A;Title: DNA Sequence of both chromosomes of the cholera pathogen Vibrio cholerae.
A;Reference number: A82035; MUID:20406833; PMID:10952301
A;Accession: H82256
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-38 <HEID
A;Cross-references: GB:AE004179; GB:AE003852; NID:g9655432; PIDN:AAF94140.1; GSPDB:GN001
A;Experimental.source: serogroup 01; strain N16961; biotype El Tor
A;Map position: 1
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Search completed: July 3, 2003, 14:07:18 Job time: 14.5 secs
                                                                                                                                                                                                                                                      Query Match 50.6%; Score 40; DB 2; Length 38; Best Local Similarity 50.0%; Pred. No. 2.8; Matches 7; Conservative 2; Mismatches 5; Indels
                                                                                                                       18 MTLNQWNWIGVGVA 31
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; LENGTH: 2293
; TYPE: PRT
; ORGANISM: Human
US-09-368-590-2
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RESULT 15
US-09-149-727-2
; Sequence 2, Application US/09149727
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                                                                                                                         Query Match
Best Local Similarity
8; Conserve
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Best Local Similarity
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Patent No. 5559008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION: APPLICANT: Chang, Yung-Fu
TITLE OF INVENTION: LEUKOTOXIN GENE FROM PASTEURELLA
TITLE OF INVENTION: SUIS
                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (716) 263-16 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                               IMMEDIATE SOURCE:
LIBRARY: P. suis DNA in Bacteriophage lambda-dash
CLONE: (Lambda)yfc33-37
                                                                                                                                                                                                                                                                                                                                                                                               NAME: Timian, Susan J.
REGISTRATION NUMBER: 34,103
REFERENCE/DOCKET NUMBER: 19603/61 (D-1329A)
TELECOMMUNICATION INFORMATION:
TELEPHONE: (716) 263-1636
TELEPHONE: (716) 263-1630
TELEFAX: (716) 263-1600
                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 934 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                    MOLECULE TYPE:
ORIGINAL SOURCE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                          STRAIN:
                                                                                                                                                                                                                                                                        ORGANISM:
                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/215,805A FILING DATE: 22-MAR-1994
                                                                                                                                                                                                                                                                                                                                                           LENGTH:
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: New York
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                                                                                                                                                                                                                                                                                                                                                 amino acid
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                                                                                                                                                                                                                                                             5943
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Pred. No. 2.
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Pred. No. 3.
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3.7e+02;
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2.4e+02;
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Search completed: July 3, 2003, 14:07:46 Job time: 12 secs
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                                                                                                                          Query Match
Best Local Similarity
~+~hes 6; Conserve
                                                                                                                                                                                                                 ; TYPE: PRT; ORGANISM: Bacillus sp. US-09-149-727-2
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SOFTWARE: PatentIn Ver. :
SEQ ID NO 2
LENGTH: 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent No. 6391547 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                      APPLICANT: Jefferson, Richard A.
APPLICANT: Kilian, Andrzej
APPLICANT: Keese, Paul Konrad
TITLE OF INVENTION: MICROBIAL BETA-GLUCURONIDASE GENES, GENE PRODUCTS AND
TITLE OF INVENTION: USES THEREOF
FILE REFERENCE: 190106.405
CURRENT APPLICATION NUMBER: US/09/149,727
CURRENT FILING DATE: 1998-09-08
EARLIER APPLICATION NUMBER: US 60/058,263
EARLIER FILING DATE: 1997-09-09
                                                                      550 EQAWNFA 556
                                                                                                         3 EQQWNFA 9
                                                                                                                                             Conservative
                                                                                                                                                            45.6%;
85.7%;
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Pred. No. 1
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Best Local Similarity
"""+"hes 5; Conserve
                                                                                       ; TOPOLOGY: linear; MOLECULE TYPE: protein US-08-579-667-6
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US-08-579-667-6
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GENERAL INFORMATION:
                               Matches
                                                       Query Match
                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/579
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Bennett, Virginia C.
REGISTRATION NUMBER: 37,092
REFERENCE/DOCKET NUMBER: 627-
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 6:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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ADDRESSEE: Virginia C. Bennett
STREET: 1211 East Morehead Street, PO Drawer 34009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Della-Cloppa, Guy R.
TITLE OF INVENTION: DNA SEQUENCES ENCODING ENZYMES USEFUL NUMBER OF SEQUENCES: 19
CORREGEORMENTS. 19
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LENGTH: 410 amino acid
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                                                                                                                                                            SEQUENCE CHARACTERISTICS:
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TELEPHONE: 919-420-2200
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                                          Local
                                                                                                                                    TYPE:
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STATE: No. 5705624th Carolina
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TYPE: amino acid
TOPOLOGY: linear
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REFERENCE/DOCKET NUMBER: 627-196
                                                                                                                                              LENGTH:
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                            Similarity 41. 5; Conservative
                                                                                                                               amino acids
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 EQQWNFAGIEAA 14
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3705624
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                                          Score 38;
Pred. No.
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Pred. No.
                            red. No. 52;
Mismatches
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US-08-579-667-8
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   SEQ ID NO 2
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APPLICANT: SOlimena, Michele
TITLE OF INVENTION: INTERACTING POLYPEPTIDES FOR
TITLE OF INVENTION: AUTOANTICENS OF AUTOIMMUNE DISE;
FILE REFERENCE: 101918-200 (OCR-941)
CURRENT APPLICATION NUMBER: US/09/368,590
CURRENT FILING DATE: 1999-08-04
EARLIER APPLICATION NUMBER: 60/095,657
EARLIER FILING DATE: 1998-08-07
NUMBER OF SEQ ID NOS: 8
SOFTWARE: FrastSEQ for Windows Version 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 48.1%;
Best Local Similarity 41.7%;
Matches 5; Conservative
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INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
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APPLICANT: Fitzma
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REGISTRATION NUMBER: 37,092
REFERENCE/DOCKET NUMBER: 627
TELECOMMUNICATION INFORMATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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CORRESPONDENCE Virginia C. Bennett
ADDRESSEE: Virginia C. Bennett
STREET: 1211 East Morehead Street, PO Drawer 34009
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TITLE OF INVENTION: DNA SEQUENCES ENCODING ENZYMES USEFUL IN
TITLE OF INVENTION: PHYTOENE BIOSYNTHESIS
NUMBER OF SEQUENCES: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 141. Charlotte
CITY: Charlotte
No. 5705624th Carolina
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
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TO TO NO:
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CLASSIFICATION:
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b. 5705624
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Pred. No.
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RESULT 9
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                                                                                                                                                                                                                                                                                 US-08-685-808-3
Sequence 3, Application US/08505860C Patent No. 6174700 GENERAL INFORMATION: APPLICANT: HAYNES, CHARLES A., et
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 3, Application US/08685808 Patent No. 6048715
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APPLICANT: HAYNES, CHARLES A., et al
TITLE OF INVENTION: SEPARATION AND CONCENTRATION SYSTEMS BASED
TITLE OF INVENTION: ON SOLUBLE OLIGOSACCHARIDE BINDING DOMAINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/685,808
FILING DATE: 24-JULY-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/505,860
APPLICATION NUMBER: 24-JULY-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 155 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Rae-Venter, Barbara
REGISTRATION NUMBER: 32,750
REFERENCE/DOCKET NUMBER: CHI
TELECOMMUNICATION INFORMATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
ADDRESSEE: RAE-VENTER LAW GROUP
STREET: 260 Sheridan Ave., Ste.
                                                                                                                                                                                                                                                                                          MOLECULE TYPE: p:
HYPOTHETICAL: no
-685-808-3
                                                                                                                                                                                                                                                                                                                                  LENGTH: 155 amino acids TYPE: amino acid TOPOLOGY: unknown
                                                                                                                                                                                                              Local Similarity
nes 6; Conserv
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(650) 328-4477
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 HAYNES, CHARLES A., et al
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Pred. No. 17;
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Pred. No.
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Mismatches
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Matches 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
APPLICANT:
                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 155 amino acids
TYPE: amino acid
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                       APPLICANT: Della-Cloppa, Guy R.
TITLE OF INVENTION: DNA SEQUENCES ENCODING ENZYMES USEFUL IN
TITLE OF INVENTION: PHYTOENE BIOSYNTHESIS
NUMBER OF SEQUENCES: 19
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HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: (650) 328-4400
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                                                                                                                                                                         COUNTRY: UZIP: 28234
                                                                                                                                                                                                           CITY: Charlotte
STATE: No. 5705624th Carolina
                                                                                                                                                                                                                                             ADDRESSEE: Virginia C. Bennett
STREET: 1211 East Morehead Street, PO Drawer 34009
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REGISTRATION NUMBER: 32,750
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STATE: California
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CLASSIFICATION:
                                   APPLICATION NUMBER:
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260 Sheridan Ave., Ste. 440
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60.0%;
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                                       us/08/579,667
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Pred. No. 17;
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                                                                                                  US-08-465-640-2
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                                           Matches
                                                                   Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                 INFORMATION FOR SEQ ID NO:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tent No.
                                                                                                                                                      SEQUENCE CHARACTERISTICS LENGTH: 95 amino acid:
                                                                                                                                                                                                                                                                                                                                                        JURRENT AFFICIAL MUMBER: US/08/403,000 FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA: DS 08/123,182
                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                               MOLECULE TYPE: protein
                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: TELEPHONE: 202-628-5197
                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 01 FILING DATE: 20-SEP-1993 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                         FILING DATE: 01-JUL-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF
                                                                                                                          TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Washington STATE: D.C.
                                                        Local
                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: AND LECOMMUNICATION TOTAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS.
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                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/DK94/00273 FILING DATE: 01-JUL-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
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1 MTEQQWNFAGIEAAA 15
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15; Conserv
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                                                        Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               I: SORENSEN, Anne Lund
INVENTION: TUBERCULOSIS VACCINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application US/08465640
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419 Seventh Street, N.W.,
                                                                                                                                                    95 amino acids
                                                                                                                                                                                                          202-737-3528
                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Floppy disk
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                                                        Score 79;
Pred. No.
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                                           Mismatches
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                                                      5.6e-07;
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                                                                        DB 2;
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                                                                   Length 95;
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                                         Indels
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                                         Gaps
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US-08-579-667-4
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APPLICANT:
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           TELEFAX: 919-881-3175
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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TYPE: PRT
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                                                                  NAME: Bennett, Virginia C.
REGISTRATION NUMBER: 37,092
REFERENCE/DOCKET NUMBER: 627
TELECOMMUNICATION INFORMATION:
                                                                                                                         CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                 CURRENT APPLICATION DATA:
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                           TELEPHONE: 919-881-3175
                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                      FILING DATE:
                                                                                                                                                                                              SOFTWARE:
                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                    APPLICATION NUMBER:
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US/08/579,667

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Sequence 4, Application US/08579667
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APPLICANT: Fitzma
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 1996-12-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/001,984C
CURRENT FILING DATE: 1997-12-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Mycobacterium tuberculosis strain H37Rv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PLICANT: Belisle, John T
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                       TITLE OF INVENTION: DNA SEQUENCES ENCODING
                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 90.0%; les 9; Conservation
                                                                       STATE: NO.
                                                                                                    ADDRESSEE: Virginia C. Bennett
STREET: 1211 East Morehead Street,
                                                                                                                                                                                                                                                                                                                                                                                                                          2 TEQQWNFAGI 11
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1 TEQQWDFAGI 10
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                                                                       Charlotte
No. 5705624th Carolina
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                                                      USA
                                                                                                                                                                             Della-Cioppa, Guy R.
VENTION: DNA SEQUENCES ENCODING ENZYMES USEFUL IN
                                                                                                                                                                                                                                               Grill, Laurence K.
                                                                                                                                                                                                                                                                   Hellmann, Gary M
                                                                                                                                                                                                                                                                                 tzmaurice, Wayne P
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                                                                                                                                                                                                                                Monto H.
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Pred. No. 0.0024;
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                                                                                                         PO Drawer 34009
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US-09-056-556-104
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US-08-818-111-99
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Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                         Patent No. 6350456
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                            Sequence 104,
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ZIP: 98104-70>,
ZIP: 98104-70>,
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
""CTEM: PC-DOS/MS-DOS
""CTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO:
                                                                                                                           APPLICANT: Reed, Steven ... APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Dillon, Davin C.
APPLICANT: Dillon, Davin C.
APPLICANT: ON TOWN OF THE PROPERTY OF THE PR
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APPLICANT:
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CURRENT APPLICATION DATA:
                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 51 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
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STRANDEDNESS: si
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REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 21
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CLASSIFICATION:
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ADDRESSEE: SEED and BEKKI LLL.
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/0
FILING DATE: 13-MAR-1997
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Dillon, Davin C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Twardzik,
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COMPOUNDS AND METHODS FOR DIAGNOSIS OF
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
ATTORNEY/AGENT INFORMATION:
NAME: MAK1, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 211
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Mak1, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 21
TELECOMMUNICATION INFORMATION:
                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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LENGTH: 51 amino acids
TYPE: amino acid
STRANDEDNESS: single
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CORRESPONDENCE ADDRESS:
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CLASSIFICATION:
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7: USA
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(206) 682-6031
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1: /cgn2_6/ptodata/1,
2: /cgn2_6/ptodata/1,
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Copyright (c) 1993 - 2003 Compugen
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                 Query Match
Best Local Similarity
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-112-104 100 0%: Score 79: DB 4: Length 51
Query Match 100.0%; Score 79; DB 4; Length 51; Best Local Similarity 100.0%; Pred. No. 2.7e-07; Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps

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